INSTITUTE OF
PAPER CHEMISTRY
Appleton, Wisconsin

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 84

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

July 1, 1954

THE INSTITUTE OF PAPER CHEMISTRY

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In conjunction with the F.K.I. Continuous Baseline Study, one-hundred and four different sample lots of 42-lb. Fourdrinier kraft liner-board were submitted by fifteen different F.K.I. mills to The Institute of Paper Chemistry for testing during the period June 1 through June 30. In addition to the 42-lb. kraft linerboard, three samples of special drum stock were also submitted for evaluation by one of the participating mills. The results on the special stock are tabulated separately in this report. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I

DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
A	7
B	12
C	8
D	6
E	1
F	9
G	6
H	6
I	7
J	4
K	4
L	8
M	6
N	8
O	12
	104

These sample lots were tested for basis weight, caliper, bursting strength, G. E. puncture, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 6. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average includes all the results up to but not including the current period; the current period in the case of this report is June 1 through June 30. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 42.7 lb., and the cumulative F.K.I. average basis weight is 43.1 lb. Hence, the index for basis weight determined in per cent as indicated above is 99.1. This signifies that the current average basis weight is slightly lower than the cumulative average, which in this case covered the period from July 25, 1947, through May 31, 1954.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills except Mill E conform to the 42-lb. specification set forth in Rule 41. Mill M has the highest average basis weight, it being 43.8 lb. or approximately 4.3% higher than the 42-lb. specification. On the other hand, Mill E has the lowest average basis weight, it being 40.2 lb., approximately 4.3% lower than the 42-lb. specification.

The amount by which the mills vary from the 42-lb. specification is as follows:

Mill Code	Per Cent
A	+1.9
B	+2.6
C	+1.9
D	+2.4
E	-4.3
F	+2.1
G	+1.2
H	+1.2
I	+1.7
J	+1.4
K	+3.8
L	+2.6
M	+4.3
N	+1.4
O	0.0

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight results have decreased slightly.

A comparison of the average caliper values for the various mills (see Figure 2) shows that the mill averages vary from a low of 11.9 for Mill G to a high of 14.1 for Mill C, the average being 12.9 which is somewhat lower than the cumulative average of 13.8.

The average bursting strength values obtained for each mill are graphically presented in Figure 3. It may be observed in Table II that the average bursting strength values for the various mills range from a low of 103 for Mill F to a high of 124 for Mill O. The current F.K.I. average bursting strength is 111, somewhat higher than the cumulative average of 107.

The data of Table II and Figure 4 show that the average G. E. puncture result for all mills is 33 units. Mill F has the highest G. E. puncture average, 38 units; Mill B has the lowest average, 28 units. The current F.K.I. G. E. puncture average of 33 units is somewhat lower than the cumulative F.K.I. average of 36 units.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 5 and 6. The data of Table II show that Mill F has the highest average machine direction tear value while Mill B has the lowest. Mill F also has the highest average cross-machine direction tear value, and Mill G has the lowest value. It may be noted that the current F.K.I. average machine and cross-machine direction tear results are lower than the cumulative averages.

A comparison of the F.K.I. indexes indicate that, for the current period, the current F.K.I. averages for basis weight, caliper, G. E. puncture and Elmendorf tear are lower than the respective cumulative F.K.I. averages, whereas the current F.K.I. average for bursting strength is higher.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XVII for Mills A to O, respectively. In addition to the current and cumulative averages, the mill factor and mill index are given for each mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill up to, but not including, the current average. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor (\%)}$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index (\%)}$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. As the test data accumulate, the factors and indexes acquire added significance. The reports also contain a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

The results obtained on the special drum stock may be seen in Table XVIII.

It may be noted in Tables III through XVIII that the data have been separated on the basis of the sheet finish. The summarized results for the mills which submitted sample lots during the current period are as follows:

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
A	7		
B	12		
C	8		
D	6		
E	1a		3[a, b]
F	7		2[c]
G	6		

(Continued on the next page.)

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
H	6[a]		
I	7[a]		
J			4[d]
K			4[c]
L			8[c]
M	6		
N	6[a]	1	1[c]
O	12		

a One side only.
b Drum linerboard.
c Sheet finish not reported.
d Semi-water finish.

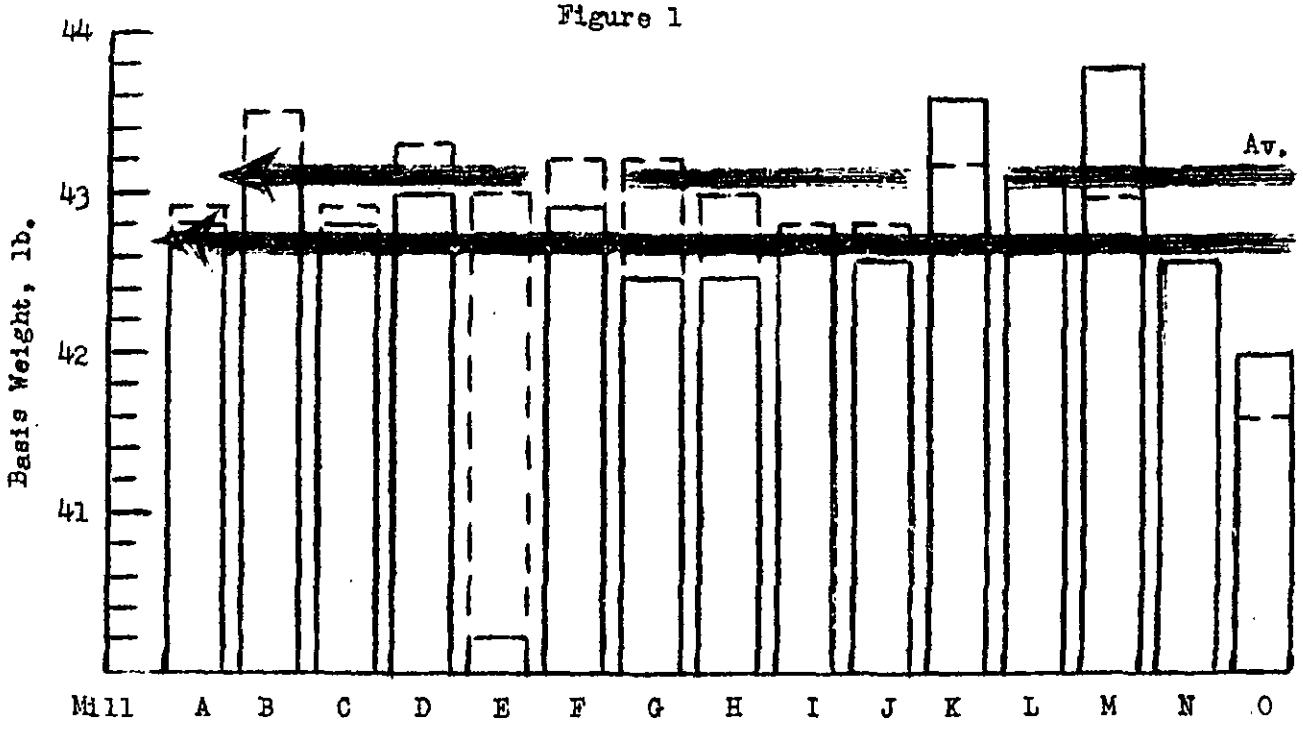
The results indicate that a majority of the mills are using a water finish on their 42-lb. linerboard.

TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES—JUNE 1 THROUGH JUNE 30, 1954

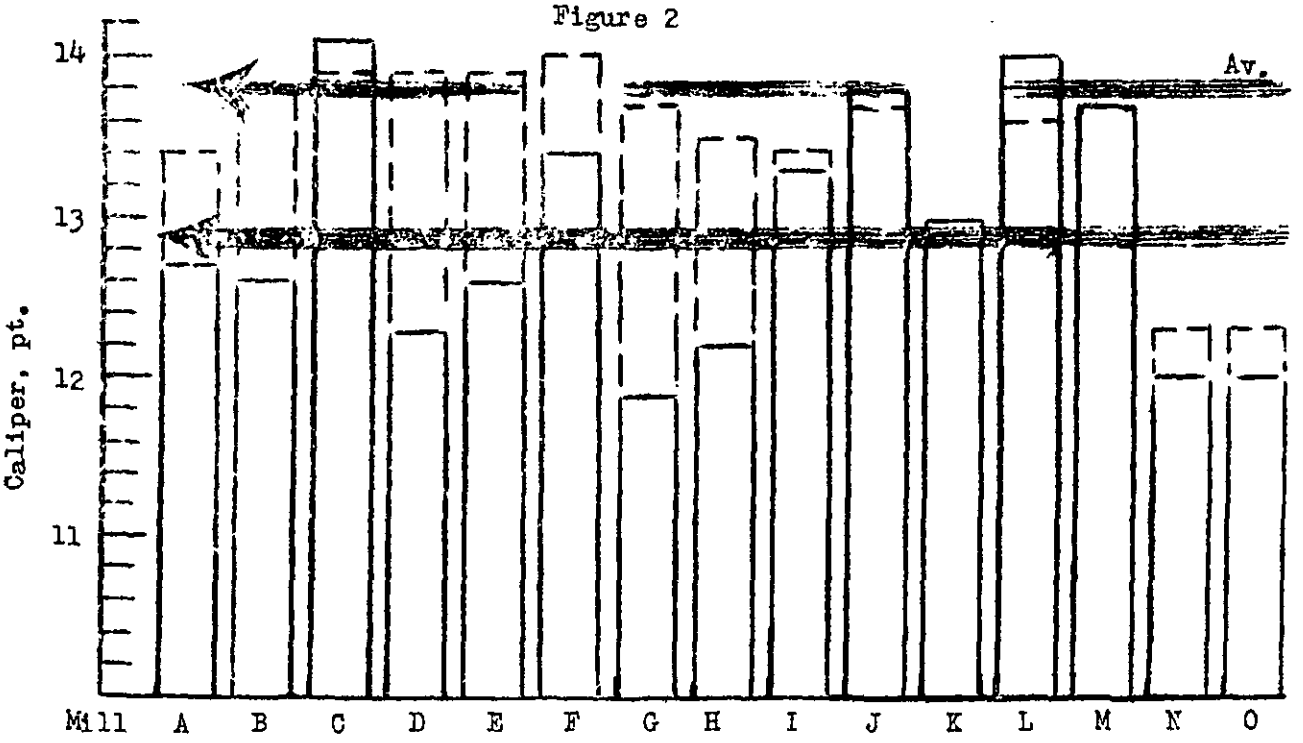
Code No.	Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	G. E. Puncture, units	Elmendorf Tear, g./sheet In Direction	Elmendorf Tear, g./sheet Across Direction
A	42.8	12.7	115	33	338	374
B	43.1	12.6	119	28	280	333
C	42.8	14.1	112	35	349	389
D	43.0	12.3	111	35	362	384
E	40.2	12.6	107	30	313	341
F	42.9	13.4	103	38	388	417
G	42.5	11.9	112	29	303	331
H	42.5	12.2	110	34	373	391
I	42.7	13.3	109	32	330	390
J	42.6	13.8	110	31	332	373
K	43.6	13.0	106	38	387	396
L	43.1	14.0	106	35	338	373
M	43.8	13.7	111	35	386	389
N	42.6	12.0	111	37	347	394
O	42.0	12.0	124	32	338	373
Current FKI Average:	42.7	12.9	111	33	344	377
Cumulative FKI Average:	43.1	13.8	107	36	368	402
FKI Index, %:	99.1	93.5	103.7	91.7	93.5	93.8

Figure 1



COMPARISON OF BASIS WEIGHT RESULTS
(Period June 1 - June 30)

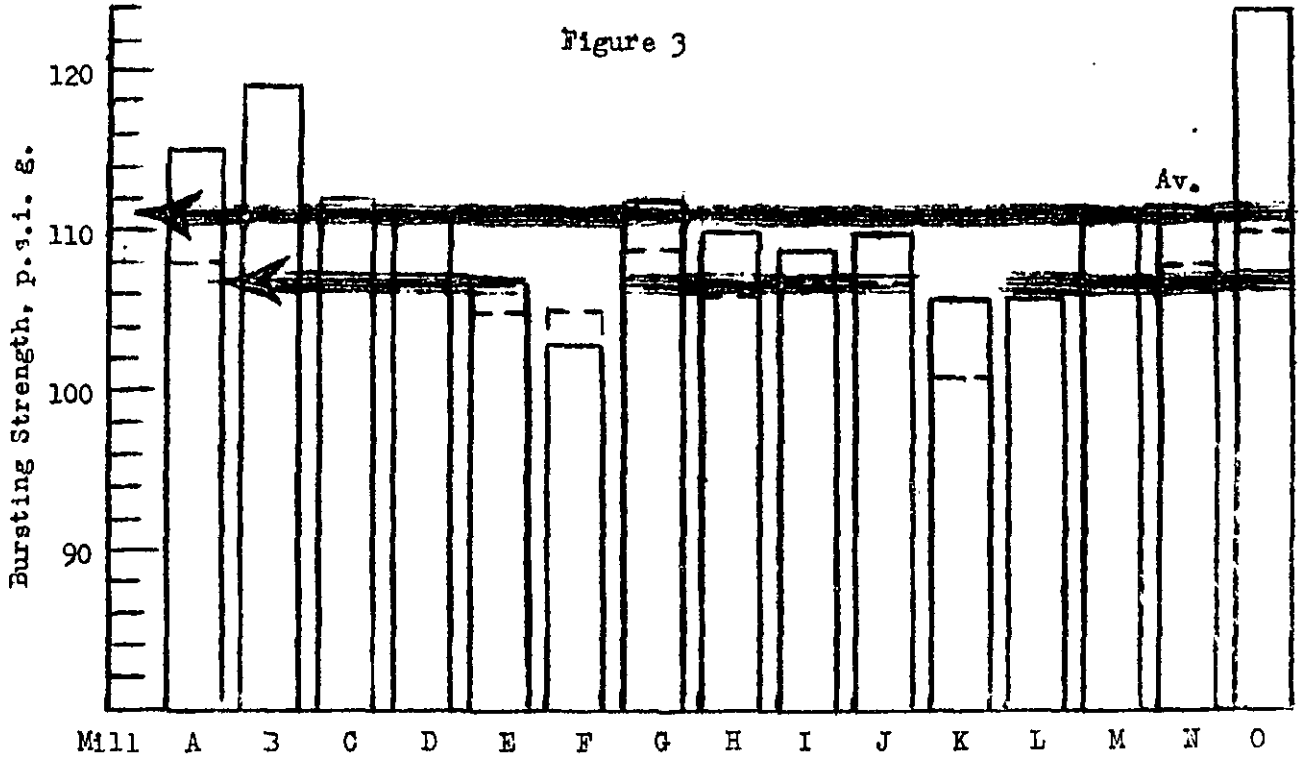
Figure 2



COMPARISON OF CALIPER RESULTS
(Period June 1 - June 30)

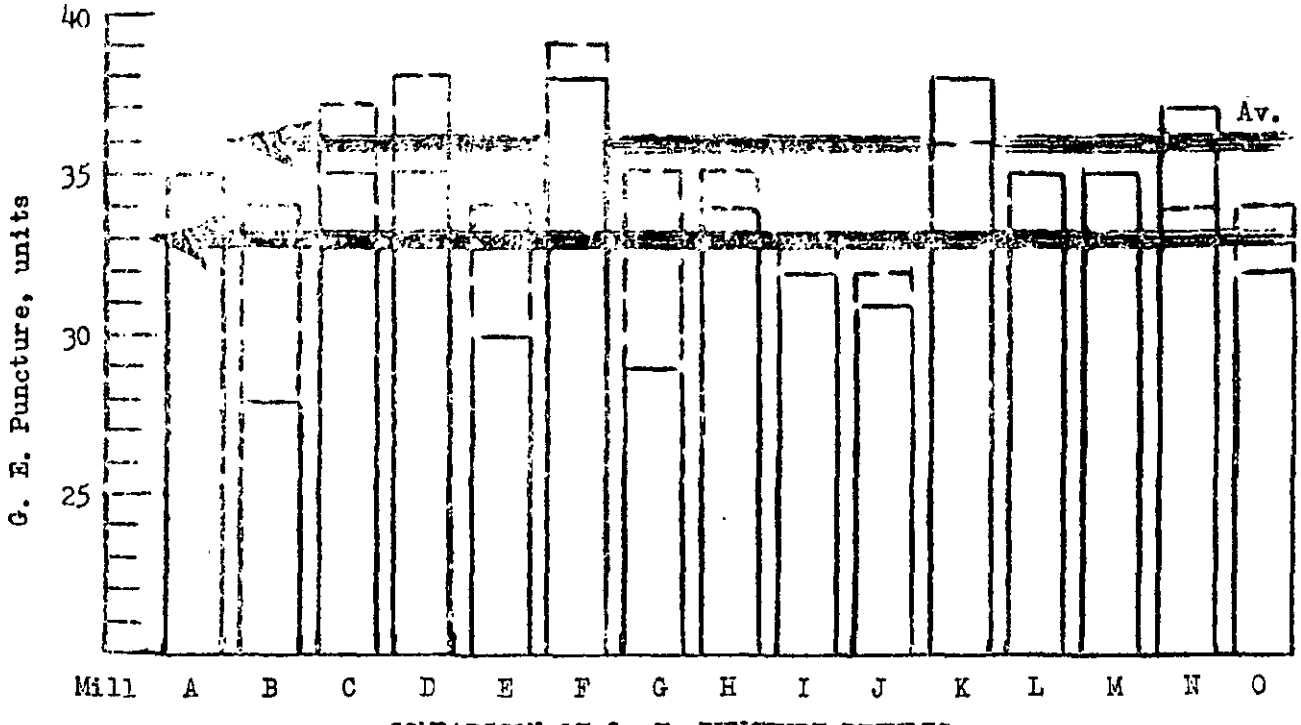
——— Current mill average
- - - - Cumulative mill average

Figure 3



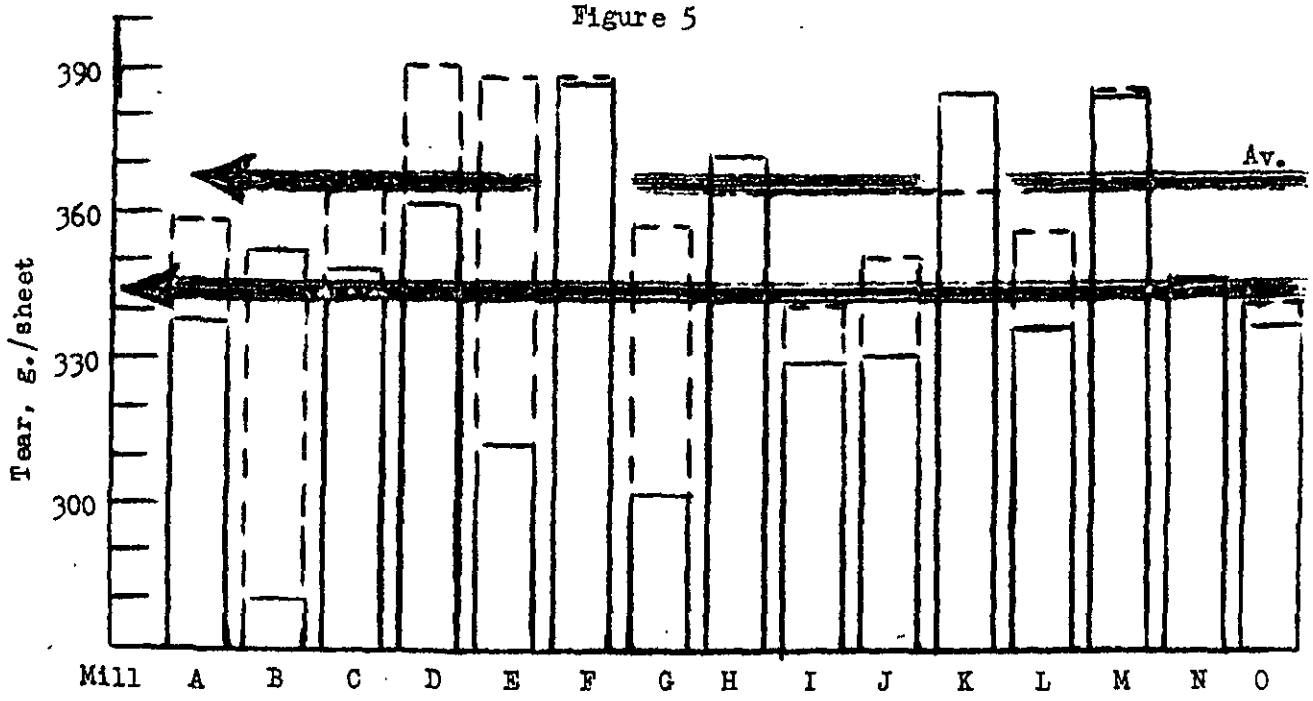
COMPARISON OF BURSTING STRENGTH RESULTS
(Period June 1 - June 30)

Figure 4



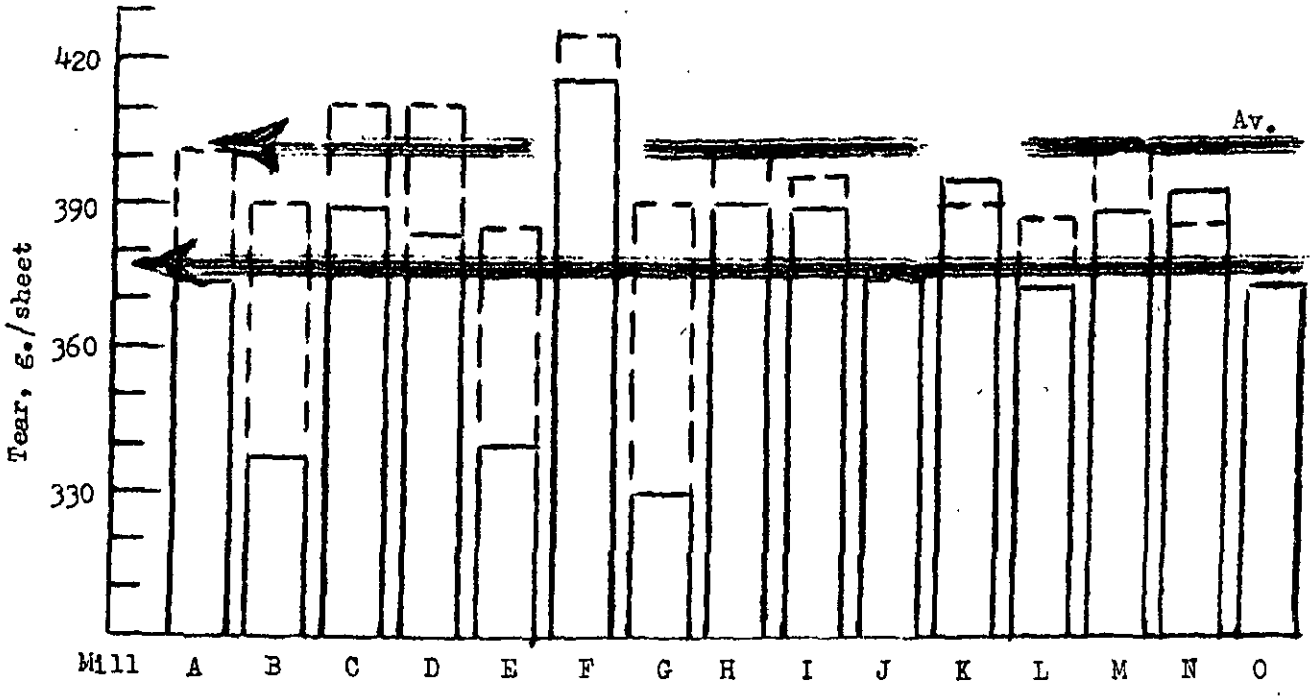
COMPARISON OF G. E. PUNCTURE RESULTS
(Period June 1 - June 30)

Figure 5



COMPARISON OF TEAR RESULTS, Machine Direction
(Period June 1 - June 30)

Figure 6



COMPARISON OF TEAR RESULTS, Across-machine Direction
(Period June 1 - June 30)

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill A--42-lb. Linerboard																	
43.0	42.2	42.6	13.2	12.7	12.9	120	83	106	35	31	33	400	296	353a	448	344	393a
44.2	43.0	43.6	13.1	12.2	12.8	137	96	114	37	31	34	400	288	327a	400	352	371a
43.8	42.4	43.0	13.1	12.5	12.9	135	84	112	36	32	34	416	304	361a	416	336	365a
43.0	42.0	42.5	13.2	12.2	12.8	140	93	115	34	30	32	400	288	339	392	352	369a
44.0	42.4	43.2	12.8	12.1	12.5	144	100	119	39	33	36	384	304	338a	416	352	383a
44.0	42.0	42.7	12.8	12.0	12.5	143	100	118	37	32	34	392	280	321a	416	336	371a
42.8	41.8	42.2	12.6	12.0	12.4	135	96	118	32	30	31	376	280	328a	400	304	365a
		42.8			12.7			115			33			338			374
		42.9			13.4			108			35			358			401
		99.8			94.8			106.5			94.3			94.4			93.3
		99.3			92.0			107.5			91.7			91.8			93.0

or more specimens which tore beyond the 3/8-inch limit.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	I Max.	I Min
											Mill A--42-lb. Linerboard								
158382	A-551	WF1S	6/ 4/54	5/26/54	2	43.0	42.2	42.6	13.2	12.7	12.9	120	83	106	35	31	33	400	296
158340	A-552	WF1S	6/ 3/54	5/30/54	1	44.2	43.0	43.6	13.1	12.2	12.8	137	96	114	37	31	34	400	288
158392	A-553	WF1S	6/ 7/54	5/31/54	1	43.8	42.4	43.0	13.1	12.5	12.9	135	84	112	36	32	34	416	304
158393	A-554	WF1S	6/ 7/54	5/30/54	2	43.0	42.0	42.5	13.2	12.2	12.8	140	93	115	34	30	32	400	288
158662	A-555	WF1S	6/21/54	6/ 9/54	1	44.0	42.4	43.2	12.8	12.1	12.5	144	100	119	39	33	36	384	304
158663	A-556	WF1S	6/21/54	6/ 9/54	1	44.0	42.0	42.7	12.8	12.0	12.5	143	100	118	37	32	34	392	280
158710	A-557	WF1S	6/23/54	6/13/54	1	42.8	41.8	42.2	12.6	12.0	12.4	135	96	118	32	30	31	376	280
Current Mill Average:								42.8			12.7			115			33		
Cumulative Mill Average:								42.9			13.4			108			35		
Mill Factor, %:								99.8			94.8			106.5			94.3		
Mill Index, %:								99.3			92.0			107.5			91.7		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IV

MMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (continued)

Basis Weight, lb.			Caliper, points			Bursting Strength p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
						Mill B--42-lb. Linerboard											
3.4	41.0	42.6	13.2	12.4	12.9	135	99	114	30	26	28	280	224	257a	352	296	323a
4.0	42.0	43.1	13.8	12.3	13.0	127	98	111	28	24	27	296	232	265a	368	288	325a
3.8	41.6	42.8	13.1	11.8	12.5	131	90	110	29	26	28	312	216	259	336	280	311a
4.0	42.2	43.3	13.2	12.5	13.0	134	98	112	29	25	27	288	176	251	352	288	319a
4.3	43.8	44.2	13.8	12.1	12.8	144	112	127	33	30	31	344	192	293a	408	328	369a
4.4	42.4	43.8	13.5	12.1	12.7	143	104	126	32	28	30	384	192	302	400	312	367a
4.2	43.6	44.0	13.3	12.0	12.6	148	113	126	33	28	31	344	272	306a	400	312	352a
4.2	42.2	43.8	13.2	12.0	12.6	138	108	124	34	28	31	336	288	308a	400	328	366a
3.6	41.4	42.2	13.0	11.8	12.2	125	104	116	28	24	27	304	240	269	376	304	333a
3.6	41.8	42.5	12.9	11.4	12.3	138	105	120	29	24	28	328	176	274	344	312	330a
3.8	41.8	42.5	13.0	12.4	12.3	140	108	121	30	25	27	320	240	283a	368	320	337a
3.6	41.2	42.5	13.0	11.4	12.3	132	102	116	30	26	28	312	264	289	360	304	330a
		43.1			12.6			119			28			280			338
		43.5			13.8			107			34			353			390
		99.1			91.3			111.2			82.4			79.3			86.7
		100.0			91.3			111.2			77.8			76.1			84.1

r more specimens which tore beyond the 3/8-inch limit.

TABLE IV

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength p.s.i. gage Max.	Bursting Strength p.s.i. gage Min.	Bursting Strength p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmer. In Max.	Elmer. In Min.	Elmer. g.
											Mill B--42-lb. Linerboard								
158290	B-1007	WF1S	6/ 2/54	5/25/54	1	43.4	41.0	42.6	13.2	12.4	12.9	135	99	114	30	26	28	280	224	25
158253	B-1008	WF1S	6/ 1/54	5/25/54	1	44.0	42.0	43.1	13.8	12.3	13.0	127	98	111	28	24	27	296	232	26
158291	B-1009	WF1S	6/ 2/54	5/25/54	1	43.8	41.6	42.8	13.1	11.8	12.5	131	90	110	29	26	28	312	216	25
158254	B-1010	WF1S	6/ 1/54	5/25/54	1	44.0	42.2	43.3	13.2	12.5	13.0	134	98	112	29	25	27	288	176	25
158507	B-1011	WF1S	6/14/54	6/ 3/54	1	44.8	43.8	44.2	13.8	12.1	12.8	144	112	127	33	30	31	344	192	29
158508	B-1012	WF1S	6/14/54	6/ 3/54	1	44.4	42.4	43.8	13.5	12.1	12.7	143	104	126	32	28	30	384	192	30
158509	B-1013	WF1S	6/14/54	6/ 3/54	1	44.2	43.6	44.0	13.3	12.0	12.6	148	113	126	33	28	31	344	272	30
158510	B-1014	WF1S	6/14/54	6/ 3/54	1	44.2	42.2	43.8	13.2	12.0	12.6	138	108	124	34	28	31	336	288	30
158657	B-1015	WF1S	6/21/54	6/ 9/54	1	43.6	41.4	42.2	13.0	11.8	12.2	125	104	116	28	24	27	304	240	26
158658	B-1016	WF1S	6/18/54	6/ 9/54	1	43.6	41.8	42.5	12.9	11.4	12.3	138	105	120	29	24	28	328	176	27
158659	B-1017	WF1S	6/18/54	6/ 9/54	1	43.8	41.8	42.5	13.0	12.4	12.3	140	108	121	30	25	27	320	240	28
158660	B-1018	WF1S	6/18/54	6/ 9/54	1	43.6	41.2	42.5	13.0	11.4	12.3	132	102	116	30	26	28	312	264	28
Current Mill Average:								43.1			12.6			119			28			28
Cumulative Mill Average:								43.5			13.8			107			34			35
Mill Factor, %:								99.1			91.3			111.2			82.4			7
Mill Index, %:								100.0			91.3			111.2			77.8			7

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (continued)

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill C--42-lb. Linerboard																	
43.0	41.8	42.2	14.2	13.0	13.7	140	89	114	36	31	33	384	296	336	392	312	369a
42.4	41.6	41.9	14.2	13.0	13.8	131	79	110	35	31	33	400	272	334a	416	328	373a
44.8	43.6	44.0	15.1	14.1	14.7	139	93	112	39	34	36	416	312	369a	464	344	399a
43.0	42.6	42.1	15.2	14.2	14.8	136	84	114	40	33	37	400	280	361a	456	352	407a
43.8	42.0	42.9	15.0	13.8	14.3	128	83	104	39	34	36	448	312	377a	432	368	392a
43.8	41.8	43.0	14.9	13.9	14.4	135	87	108	39	33	36	352	320	335	432	368	400a
43.0	41.6	42.1	14.2	13.0	13.6	133	90	116	39	32	36	384	288	331	448	352	392a
42.2	40.4	41.8	14.1	13.4	13.8	139	80	116	38	32	35	424	280	349	416	336	379a
		42.8			14.1			112			35			349			389
		42.9			13.9			107			37			367			411
		99.8			101.4			104.7			94.6			95.1			94.6
		99.3			102.2			104.7			97.2			94.8			96.8

or more specimens whhch tore beyond the 3/8-inch limit.

TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Max.	M
											Mill C--42-lb. Linerboard								
158475	C-571	W.F.	6/11/54	6/ 1/54	1	43.0	41.8	42.2	14.2	13.0	13.7	140	89	114	36	31	33	384	29
158476	C-572	W.F.	6/11/54	6/ 1/54	1	42.4	41.6	41.9	14.2	13.0	13.8	131	79	110	35	31	33	400	27
158477	C-573	W.F.	6/11/54	6/ 4/54	1	44.3	43.6	44.0	15.1	14.1	14.7	139	93	112	39	34	36	416	31
158478	C-574	W.F.	6/11/54	6/ 4/54	1	45.0	43.6	44.1	15.2	14.2	14.8	136	84	114	40	33	37	400	28
158479	C-575	W.F.	6/11/54	6/ 5/54	1	46.8	42.0	43.8	15.0	13.8	14.3	128	83	104	39	34	36	448	31
158494	C-576	W.F.	6/12/54	6/ 5/54	1	43.8	41.8	43.0	14.9	13.9	14.4	135	87	108	39	33	36	352	32
158495	C-577	W.F.	6/12/54	6/ 6/54	1	43.0	41.6	42.1	14.2	13.0	13.6	133	90	116	39	32	36	384	28
158496	C-578	W.F.	6/12/54	6/ 7/54	1	42.2	40.4	41.8	14.1	13.4	13.8	139	80	116	38	32	35	424	28
Current Mill Average:								42.8			14.1			112			35		
Cumulative Mill Average:								42.9			13.9			107			37		
Mill Factor, %:								99.8			101.4			104.7			94.6		
Mill Index, %:								99.3			102.2			104.7			97.2		

[a] This average includes the readings for one or more specimens whhch tore beyond the 3/8-inch limit.

TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (Continued)

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
						Mill D--42-lb. Linerboard											
43.2	42.0	42.6	12.6	11.7	12.2	133	75	107	40	32	36	416	328	369a	448	336	393a
45.0	42.4	43.6	13.0	12.2	12.5	132	91	109	40	31	36	416	312	352a	440	336	395a
44.6	42.0	43.5	12.6	11.9	12.2	137	84	111	40	34	36	456	336	401a	456	368	398a
44.2	41.6	43.0	12.8	11.8	12.3	134	101	118	39	32	35	400	312	359a	448	352	396a
44.0	42.0	43.1	13.0	12.0	12.5	137	87	114	36	30	34	424	336	372a	400	320	369a
43.0	41.0	42.0	12.9	11.5	12.1	125	85	104	37	30	33	352	288	321a	400	312	351a
		43.0			12.3			111			35			362			384
		43.3			13.9			107			38			391			411
		99.3			88.5			103.7			92.1			92.6			93.4
		99.8			89.1			103.7			97.2			98.4			95.5

TABLE VII

						Mill E--42-lb. Linerboard											
40.6	39.8	40.2	13.1	12.0	12.6	116	83	107	32	28	30	352	272	313	368	320	341a
		40.2			12.6			107			30			313			341
		43.0			13.9			105			34			389			386
		93.5			90.6			101.9			88.2			80.5			88.3
		93.3			91.3			100.0			83.3			85.1			84.8

one or more specimens which tore beyond the 3/8-inch limit.

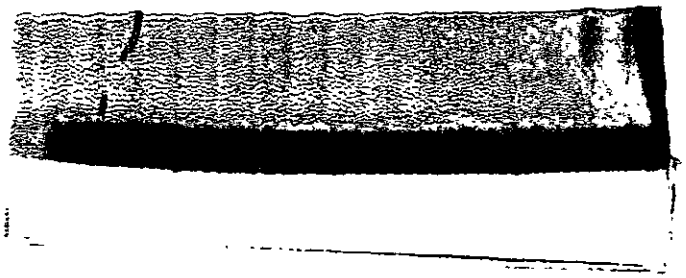


TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (Continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units				
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	M
											Mill D--42-lb. Linerboard								
158383	D-769	W.F.	6/ 5/54	6/ 1/54	4	43.2	42.0	42.6	12.6	11.7	12.2	133	75	107	40	32	36	416	32
158433	D-770	W.F.	6/ 9/54	6/ 3/54	4	45.0	42.4	43.6	13.0	12.2	12.5	132	91	109	40	31	36	416	31
158434	D-771	W.F.	6/9/54	6/ 5/54	4	44.6	42.0	43.5	12.6	11.9	12.2	137	84	111	40	34	36	456	33
158474	D-772	W.F.	6/11/54	6/ 8/54	4	44.2	41.6	43.0	12.8	11.8	12.3	134	101	118	39	32	35	400	31
158709	D-773	W.F.	6/23/54	6/18/54	4	44.0	42.0	43.1	13.0	12.0	12.5	137	87	114	36	30	34	424	33
158712	D-774	W.F.	6/23/54	6/20/54	4	43.0	41.0	42.0	12.9	11.5	12.1	125	85	104	37	30	33	352	28
Current Mill Average:								43.0			12.3			111			35		
Cumulative Mill Average:								43.3			13.9			107			38		
Mill Factor, %:								99.3			88.5			103.7			92.1		
Mill Index, %:								99.8			89.1			103.7			97.2		

TABLE VII

											Mill E--42-lb. Linerboard								
158500	E-75	WF1S	6/14/54	6/ 9/54	2	40.6	39.8	40.2	13.1	12.0	12.6	116	83	107	32	28	30	352	27
Current Mill Average:								40.2			12.6			107			30		
Cumulative Mill Average:								43.0			13.9			105			34		
Mill Factor, %:								93.5			90.6			101.9			88.2		
Mill Index, %:								93.3			91.3			100.0			83.3		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VIII

ARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
x.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
						Mill F--42-lb. Linerboard											
.6	41.8	42.4	13.9	12.4	13.1	114	88	102	38	32	36	384	336	365a	464	368	413a
.2	42.4	43.4	13.9	12.3	13.3	125	80	102	42	36	39	440	352	389a	480	384	423a
.0	42.0	43.0	13.4	12.0	12.9	126	88	104	39	34	37	424	352	379a	432	352	400a
.0	42.2	43.4	14.1	11.5	13.3	109	73	96	38	32	36	424	344	392a	448	368	405a
.8	41.8	42.4	14.0	12.2	13.2	124	80	101	38	33	36	416	344	377a	456	392	414a
.2	42.0	43.2	14.5	12.5	13.8	122	78	104	42	35	39	496	328	398a	464	376	425a
.8	41.2	42.8	14.2	12.6	13.7	118	89	103	43	36	40	440	336	393a	472	368	428a
.0	42.0	42.9	14.4	12.8	13.6	137	79	106	43	38	40	456	336	402a	464	368	423a
.8	41.0	42.4	14.4	13.5	14.1	126	80	109	39	36	37	432	352	394a	448	368	421a
		42.9			13.4			103			38			388			417
		43.2			14.0			105			39			389			426
		99.3			95.7			98.1			97.4			99.7			97.9
		99.5			97.1			96.3			105.6			105.4			103.7

more specimens which tore beyond the 3/8-inch limit.

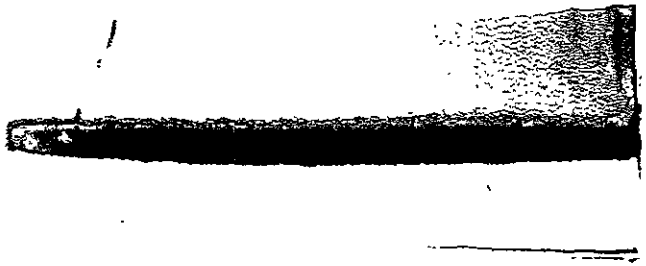


TABLE VIII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Elmendorf Tear, g In Max.	Elmendorf Tear, g In Min.
											Mill F--42-lb. Linerboard								
158235	F-36	---	6/ 1/54	5/12/54	--	43.6	41.8	42.4	13.9	12.4	13.1	114	88	102	38	32	36	384	336
158236	F-37	---	6/ 1/54	5/15/54	--	44.2	42.4	43.4	13.9	12.3	13.3	125	80	102	42	36	39	440	352
158255	F-38	W.F.	6/ 1/54	5/19/54	--	44.0	42.0	43.0	13.4	12.0	12.9	126	88	104	39	34	37	424	352
158256	F-39	W.F.	6/ 1/54	5/26/54	--	44.0	42.2	43.4	14.1	11.5	13.3	109	73	96	38	32	36	424	344
158397	F-40	W.F.	6/ 7/54	5/27/54	--	43.8	41.8	42.4	14.0	12.2	13.2	124	80	101	38	33	36	416	344
158398	F-41	W.B.	6/ 7/54	5/28/54	--	44.2	42.0	43.2	14.5	12.5	13.8	122	78	104	42	35	39	496	328
158664	F-42	W.B.	6/21/54	6/ 7/54	--	43.8	41.2	42.8	14.2	12.6	13.7	118	89	103	43	36	40	440	336
158665	F-43	W.F.	6/21/54	6/11/54	--	44.0	42.0	42.9	14.4	12.8	13.6	137	79	106	43	38	40	456	336
158666	F-44	W.F.	6/21/54	6/11/54	--	43.8	41.0	42.4	14.4	13.5	14.1	126	80	109	39	36	37	432	352
Current Mill Average:								42.9			13.4			103			38		
Cumulative Mill Average:								43.2			14.0			105			39		
Mill Factor, %:								99.3			95.7			98.1			97.4		
Mill Index, %:								99.5			97.1			96.3			105.6		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill G—42-lb. Linerboard																	
43.6	41.0	42.3	12.8	11.6	12.1	141	88	111	32	26	28	376	248	299a	360	304	333a
44.0	42.2	43.3	13.1	11.8	12.3	131	88	112	32	26	29	344	264	301a	368	280	326a
42.6	40.4	41.8	12.5	11.4	12.0	135	94	112	30	26	28	352	256	304a	368	296	327a
43.8	42.2	43.1	12.8	11.0	11.9	139	81	113	31	27	29	376	256	299a	368	304	340a
43.8	40.6	42.0	12.1	11.3	11.8	123	90	111	30	25	28	336	272	302a	368	296	327a
43.8	41.6	42.6	12.0	11.2	11.5	138	95	115	32	28	30	344	272	315a	352	320	331a
		42.5			11.9			112			29			303			331
		43.2			13.7			109			35			358			391
		98.4			86.9			102.8			82.9			84.6			84.7
		98.6			86.2			104.7			80.6			82.3			82.3

TABLE X

Mill H—42-lb. Linerboard

44.0	42.0	42.6	13.0	12.0	12.2	130	86	113	36	32	33	416	304	363a	496	352	409a
42.2	41.8	42.1	12.8	12.0	12.2	131	85	107	38	33	35	432	328	373a	448	336	384a
42.2	41.8	41.9	12.9	11.5	12.4	122	85	106	36	31	34	432	312	361a	400	320	369a
42.2	41.0	41.7	12.2	11.8	12.1	130	91	113	36	31	32	440	304	356a	464	352	390a
45.0	42.2	43.3	12.8	11.9	12.3	129	92	111	40	33	36	512	352	409a	472	368	403a
43.8	43.0	43.5	12.5	11.5	12.1	125	66	108	38	32	34	464	328	380a	432	336	391a
		42.5			12.2			110			34			373			391
		43.0			13.5			106			35			373			403
		98.8			90.4			103.8			97.1			100.0			97.0
		98.6			88.4			102.8			94.4			101.4			97.3

or more specimens which tore beyond the 3/8-inch limit.

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	G. E. Puncture, units Max.
								Mill G—42-lb. Linerboard										
158251	G-582-A	W.F.	6/ 1/54	5/24/54	1	43.6	41.0	42.3	12.8	11.6	12.1	141	88	111	32	26	28	376
158252	G-583-A	W.F.	6/ 1/54	5/24/54	1	44.0	42.2	43.3	13.1	11.8	12.3	131	88	112	32	26	29	344
158443	G-584	W.F.	6/10/54	6/ 2/54	1	42.6	40.4	41.8	12.5	11.4	12.0	135	94	112	30	26	28	352
158444	G-585	W.F.	6/10/54	6/ 2/54	1	43.8	42.2	43.1	12.8	11.0	11.9	139	81	113	31	27	29	376
158667	G-586	W.F.	6/21/54	6/14/54	2	43.8	40.6	42.0	12.1	11.3	11.8	123	90	111	30	25	28	336
158668	G-587	W.F.	6/21/54	6/14/54	2	43.8	41.6	42.6	12.0	11.2	11.5	138	95	115	32	28	30	344
Current Mill Average:								42.5			11.9			112			29	
Cumulative Mill Average:								43.2			13.7			109			35	
Mill Factor, %:								98.4			86.9			102.8			82.9	
Mill Index, %:								98.6			86.2			104.7			80.6	

TABLE X

								Mill H—42-lb. Linerboard										
158242	H-453	WF1S	6/ 1/54	5/17/54	2	44.0	42.0	42.6	13.0	12.0	12.2	130	86	113	36	32	33	416
158243	H-454	WF1S	6/1/ 54	5/18/54	2	42.2	41.8	42.1	12.8	12.0	12.2	131	85	107	38	33	35	432
158445	H-455	WF1S	6/10/54	6/ 1/54	2	42.2	41.8	41.9	12.9	11.5	12.4	122	85	106	36	31	34	432
158446	H-456	WF1S	6/10/54	6/ 2/54	2	42.2	41.0	41.7	12.2	11.8	12.1	130	91	113	36	31	32	440
158624	H-457	WF1S	6/17/54	6/ 7/54	2	45.0	42.2	43.3	12.8	11.9	12.3	129	92	111	40	33	36	512
158625	H-458	WF1S	6/17/54	6/ 8/54	2	43.8	43.0	43.5	12.5	11.5	12.1	125	66	108	38	32	34	464
Current Mill Average:								42.5			12.2			110			34	
Cumulative Mill Average:								43.0			13.5			106			35	
Mill Factor, %:								98.8			90.4			103.8			97.1	
Mill Index, %:								98.6			88.4			102.8			94.4	

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XI

OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (continued)

s Weight, lb.		Caliper, points			Bursting Strength, lp.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
		Mill I--42-lb. Linerboard														
40.6	42.2	13.6	12.8	13.1	116	92	106	34	28	31	360	272	305a	432	336	387a
42.0	42.6	13.9	12.4	13.3	129	95	115	36	31	34	384	296	349a	448	352	392a
42.0	42.7	13.8	12.6	13.2	125	90	110	36	31	33	368	312	329a	464	352	394a
42.0	42.5	13.8	12.8	13.2	127	92	114	35	31	33	352	256	313a	448	368	401a
42.2	43.2	13.8	12.8	13.2	126	93	109	33	30	32	384	304	347a	432	344	383a
42.0	42.6	13.8	13.0	13.3	133	89	104	34	30	32	384	296	337a	440	376	398a
42.4	43.3	14.1	13.0	13.6	114	88	105	33	28	31	384	272	327a	416	336	372a
	42.7			13.3			109			32			330			390
	42.8			13.4			107			33			342			397
	99.8			99.3			101.9			97.0			96.5			98.2
	99.1			96.4			101.9			88.9			89.7			97.0

TABLE XII

		Mill J--42-lb. Linerboard														
42.2	42.7	14.2	13.2	13.7	127	97	111	34	30	32	368	288	325a	480	352	388a
42.0	42.6	14.5	13.1	13.8	130	89	111	35	30	33	384	288	349a	448	352	393a
41.8	42.5	14.5	13.1	13.9	129	89	109	34	28	31	368	288	329a	464	288	357a
41.8	42.4	14.5	13.1	13.7	134	95	110	32	28	30	400	272	325	432	320	375a
	42.6			13.8			110			31			332			378
	42.8			13.7			107			32			352			376
	99.5			100.7			102.8			96.9			94.3			100.5
	98.8			100.0			102.8			86.1			90.2			94.0

e specimens which tore beyond the 3/8-inch limit.

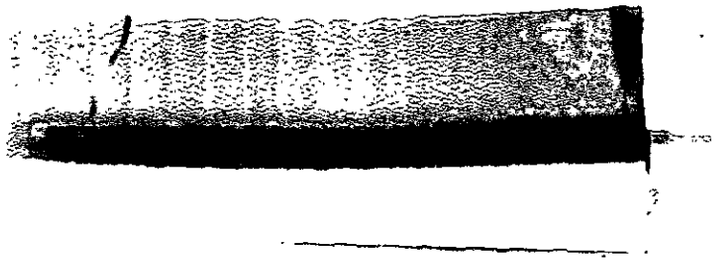


TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, lp.s.i. gage Max.	Bursting Strength, lp.s.i. gage Min.	Bursting Strength, lp.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	E. I. Max.	E. I. Min
									Mill I--42-lb. Linerboard										
158233	I-389	WFlS	6/ 1/54	5/17/54	1	43.6	40.6	42.2	13.6	12.8	13.1	116	92	106	34	28	31	360	272
158234	I-390	WFlS	6/ 1/54	5/20/54	1	44.0	42.0	42.6	13.9	12.4	13.3	129	95	115	36	31	34	384	296
158244	I-391	WFlS	6/ 1/54	5/24/54	1	43.8	42.0	42.7	13.8	12.6	13.2	125	90	110	36	31	33	368	312
158245	I-392	WFlS	6/ 1/54	5/25/54	1	43.6	42.0	42.5	13.8	12.8	13.2	127	92	114	35	31	33	352	256
158381	I-393	WFlS	6/ 4/54	6/ 1/54	1	43.8	42.2	43.2	13.8	12.8	13.2	126	93	109	33	30	32	384	304
158384	I-394	WFlS	6/ 5/54	6/ 2/54	1	43.4	42.0	42.6	13.8	13.0	13.3	133	89	104	34	30	32	384	296
158729	I-395	WFlS	6/25/54	6/21/54	1	44.0	42.4	43.3	14.1	13.0	13.6	114	88	105	33	28	31	384	272
Current Mill Average:								42.7			13.3			109			32		
Cumulative Mill Average:								42.8			13.4			107			33		
Mill Factor, %:								99.8			99.3			101.9			97.0		
Mill Index, %:								99.1			96.4			101.9			88.9		

TABLE XII

									Mill J--42-lb. Linerboard										
158294	J-487	B.F.	6/ 2/54	5/24/54	--	43.1	42.2	42.7	14.2	13.2	13.7	127	97	111	34	30	32	368	288
158295	J-488	B.F.	6/ 2/54	5/24/54	--	43.6	42.0	42.6	14.5	13.1	13.8	130	89	111	35	30	33	384	288
158501	J-489	B.F.	6/14/54	6/ 4/54	--	43.8	41.8	42.5	14.5	13.1	13.9	129	89	109	34	28	31	368	288
158502	J-490	B.F.	6/14/54	6/ 4/54	--	43.0	41.8	42.4	14.5	13.1	13.7	134	95	110	32	28	30	400	272
Current Mill Average:								42.6			13.8			110			31		
Cumulative Mill Averages:								42.8			13.7			107			32		
Mill Factor, %:								99.5			100.7			102.8			96.9		
Mill Index, %:								98.8			100.0			102.8			86.1		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XIII

UMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (continued)

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
ax.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill K--42-lb. Linerboard																	
3.8	42.2	43.2	13.7	12.6	13.1	136	81	108	42	36	39	416	336	371a	448	336	398a
5.8	43.4	44.3	13.8	12.3	13.0	146	76	110	44	36	39	472	376	415a	488	320	414a
3.8	41.8	43.3	13.1	11.9	12.4	132	75	104	39	31	36	424	320	371a	456	320	375a
4.2	42.6	43.6	14.2	12.8	13.6	129	74	104	41	33	37	464	304	390a	440	352	397a
		43.6			13.0			106			38			387			396
		43.2			13.0			101			36			366			391
		100.9			100.0			105.0			105.6			105.7			101.3
		101.2			94.2			99.1			105.6			105.2			98.5

TABLE XIV

Mill L--42-lb. Linerboard

3.8	42.2	43.1	14.8	13.9	14.2	121	91	111	37	33	35	376	304	335a	392	320	358a
5.2	43.0	43.9	15.4	14.2	14.9	123	86	105	37	31	34	344	272	320a	416	320	361a
3.8	42.0	42.8	14.3	13.0	13.6	125	86	104	38	34	36	384	288	346a	416	352	384a
4.0	42.2	42.9	14.1	13.2	13.9	129	90	113	39	32	35	400	288	335a	400	328	369a
2.0	40.0	41.2	14.9	13.8	14.3	122	69	96	36	30	32	376	296	322a	376	304	347a
4.2	43.8	43.9	14.5	12.9	13.6	137	71	105	38	32	35	400	304	353a	448	320	383a
4.2	43.0	43.7	14.8	13.0	13.8	130	84	105	40	34	38	416	320	352a	456	344	391a
5.0	42.0	43.4	14.8	13.1	14.1	134	89	112	39	34	37	368	304	337a	432	352	391a
		43.1			14.0			106			35			338			373
		43.1			13.6			106			35			357			388
		100.0			102.9			100.0			100.0			94.7			96.1
		100.0			101.4			99.1			97.2			91.8			92.8

more specimens which tore beyond the 3/8-inch limit.

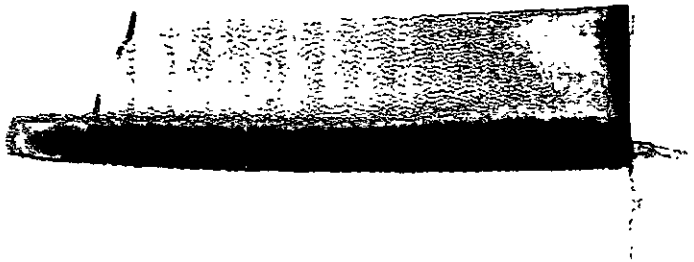


TABLE XIII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, In	
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.
Mill K—42-lb. Linerboard																			
158246	K-32		6/ 1/54	5/25/54	7	43.8	42.2	43.2	13.7	12.6	13.1	136	81	108	42	36	39	416	336
158399	K-33		6/ 7/54	6/ 1/54	7	45.8	43.4	44.3	13.8	12.3	13.0	146	76	110	44	36	39	472	376
158493	K-34		6/12/54	6/ 7/54	7	43.8	41.8	43.3	13.1	11.9	12.4	132	75	104	39	31	36	424	320
158711	K-35		6/23/54	6/17/54	7	44.2	42.6	43.6	14.2	12.8	13.6	129	74	104	41	33	37	464	304
Current Mill Average:								43.6			13.0			106			38		
Cumulative Mill Average:								43.2			13.0			101			36		
Mill Factor, %:								100.9			100.0			105.0			105.6		
Mill Index, %:								101.2			94.2			99.1			105.6		

TABLE XIV

Mill L—42-lb. Linerboard

158292	L-275		6/ 2/54	5/19/54	1	43.8	42.2	43.1	14.8	13.9	14.2	121	91	111	37	33	35	376	304
158293	L-276		6/ 2/54	5/16/54	1	45.2	43.0	43.9	15.4	14.2	14.9	123	86	105	37	31	34	344	272
158394	L-277		6/ 7/54	5/26/54	1	43.8	42.0	42.8	14.3	13.0	13.6	125	86	104	38	34	36	384	288
158395	L-278		6/ 7/54	5/30/54	1	44.0	42.2	42.9	14.1	13.2	13.9	129	90	113	39	32	35	400	288
158581	L-279		6/15/54	6/ 5/54	1	42.0	40.0	41.2	14.9	13.8	14.3	122	69	96	36	30	32	376	296
158582	L-280		6/15/54	6/ 6/54	1	44.2	43.8	43.9	14.5	12.9	13.6	137	71	105	38	32	35	400	304
158687	L-281		6/22/54	6/ 9/54	1	44.2	43.0	43.7	14.8	13.0	13.8	130	84	105	40	34	38	416	320
158688	L-282		6/22/54	6/12/54	1	45.0	42.0	43.4	14.8	13.1	14.1	134	89	112	39	34	37	368	304
Current Mill Average:								43.1			14.0			106			35		
Cumulative Mill Average:								43.1			13.6			106			35		
Mill Factor, %:								100.0			102.9			100.0			100.0		
Mill Index, %:								100.0			101.4			99.1			97.2		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XV

NDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Weight,		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
lo.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill M—42 lb. Linerboard																
.2	44.8	14.9	14.0	14.3	146	84	114	40	34	37	512	368	431a	464	384	418a
.8	43.3	13.9	12.9	13.4	128	97	114	35	30	33	400	304	355a	416	344	385a
.8	43.5	14.0	12.9	13.6	138	89	107	39	30	35	448	368	397a	440	352	394a
.0	43.5	14.1	13.1	13.7	130	95	113	39	32	35	424	304	377a	480	336	389a
.4	43.5	14.1	12.9	13.3	133	104	113	34	31	33	400	344	370a	408	352	377a
.2	43.8	14.5	13.0	13.9	125	89	108	38	32	36	432	336	386a	400	328	373a
	43.8			13.7			111			35			386			389
	43.0			13.7			107			35			387			403
	101.9			100.0			103.7			100.0			99.7			96.5
	101.6			99.3			103.7			97.2			104.9			96.8

specimens which tore beyond the 3/8-inch limit.

TABLE XV

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Max.
											Mill M—42-lb. Linerboard						
158241	M-234	W.	6/ 1/54	5/20/54	4	46.0	44.2	44.8	14.9	14.0	14.3	146	84	114	40	34	37	512
158288	M-235	W.	6/ 2/54	5/23/54	2	45.2	41.8	43.3	13.9	12.9	13.4	128	97	114	35	30	33	400
158289	M-236	W.	6/ 2/54	5/24/54	2	45.8	41.8	43.5	14.0	12.9	13.6	138	89	107	39	30	35	448
158505	M-237	W.	6/14/54	6/ 1/54	2	46.2	42.0	43.5	14.1	13.1	13.7	130	95	113	39	32	35	424
158506	M-238	W.	6/14/54	6/ 3/54	4	44.0	42.4	43.5	14.1	12.9	13.3	133	104	113	34	31	33	400
158661	M-239	W.	6/21/54	6/ 8/54	4	45.8	42.2	43.8	14.5	13.0	13.9	125	89	108	38	32	36	432
Current Mill Average:								43.8			13.7			111			35	
Cumulative Mill Average:								43.0			13.7			107			35	
Mill Factor, %:								101.9			100.0			103.7			100.0	
Mill Index, %:								101.6			99.3			103.7			97.2	

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVI

RY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (continued)

is Weight, lb.		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
					Mill N--42-lb. Linerboard											
42.0	42.1	12.5	11.4	12.0	124	98	111	40	32	36	416	280	339a	440	352	395a
43.0	44.1	13.7	12.0	12.7	123	84	105	42	36	38	400	312	360a	464	352	404a
40.4	41.5	12.5	11.5	12.0	121	81	105	38	31	35	360	264	332a	416	344	385a
42.0	42.6	12.6	11.6	12.1	120	79	110	37	33	35	376	320	346a	432	336	393a
43.4	44.0	12.3	11.6	12.0	135	100	115	44	38	41	432	272	359a	448	368	406a
41.0	42.0	12.7	11.0	11.7	129	92	111	38	32	35	368	304	338a	424	360	379a
42.2	42.6	12.5	11.5	12.0	126	100	112	39	33	37	384	312	351a	400	352	377a
41.0	41.8	12.3	11.3	11.8	137	101	118	40	34	37	416	288	355a	488	368	408a
	42.6			12.0			111			37			347			394
	42.6			12.3			108			34			345			387
	100.0			97.6			102.8			108.8			100.6			101.8
	98.8			87.0			103.7			102.8			94.3			98.0

ore specimens which tore beyond the 3/8-inch limit.

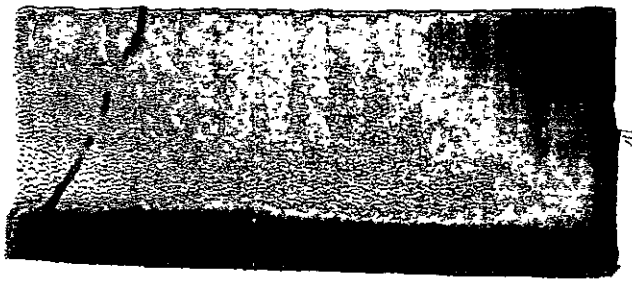


TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elme.		g
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	In Min.	
												Mill N--42-lb. Linerboard								
158346	N-81	WFlS	6/ 4/54	5/24/54	1	42.4	42.0	42.1	12.5	11.4	12.0	124	98	111	40	32	36	416	280	3
158347	N-82	WFlS	6/ 4/54	5/22/54	1	45.2	43.0	44.1	13.7	12.0	12.7	123	84	105	42	36	38	400	312	3
158348	N-83	WFlS	6/ 4/54	5/29/54	1	42.2	40.4	41.5	12.5	11.5	12.0	121	81	105	38	31	35	360	264	3
158349	N-84	—	6/ 4/54	5/31/54	1	43.8	42.0	42.6	12.6	11.6	12.1	120	79	110	37	33	35	376	320	3
158671	N-85	D.F.	6/21/54	6/ 6/54	1	44.6	43.4	44.0	12.3	11.6	12.0	135	100	115	44	38	41	432	272	3
158672	N-86	WFlS	6/21/54	6/10/54	1	42.6	41.0	42.0	12.7	11.0	11.7	129	92	111	38	32	35	368	304	3
158730	N-87	WFlS	6/25/54	6/12/54	1	43.0	42.2	42.6	12.5	11.5	12.0	126	100	112	39	33	37	384	312	3
158731	N-88	WFlS	6/25/54	6/21/54	1	42.2	41.0	41.8	12.3	11.3	11.8	137	101	118	40	34	37	416	288	3
Current Mill Average:								42.6			12.0			111			37			3
Cumulative Mill Average:								42.6			12.3			108			34			3
Mill Factor, %:								100.0			97.6			102.8			108.8			1
Mill Index, %:								98.8			87.0			103.7			102.8			

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Elmendorf Tear, g./sheet In Max.	Min.	Av.	Across Max.	Min.	Av.
							Mill O—42-lb. Linerboard											
3	42.0	40.0	40.8	12.8	11.0	12.0	137	100	122	34	30	31	360	256	314	368	336	353a
3	42.4	40.0	40.6	12.3	11.2	11.6	129	101	116	31	26	28	368	296	321a	376	320	344a
3	43.6	41.6	42.4	13.1	11.9	12.4	142	100	118	38	33	36	416	336	368a	416	360	393a
3	43.8	42.2	43.1	13.0	12.0	12.6	145	109	121	35	30	33	432	304	354a	432	352	381a
3	43.2	40.4	41.8	12.0	11.0	11.4	145	113	130	34	29	32	432	272	343a	400	352	372a
3	42.8	41.4	42.1	12.1	10.8	11.5	156	114	138	33	30	31	376	288	330a	416	344	374a
3	43.0	41.6	42.0	12.2	11.2	11.8	135	100	121	34	28	31	384	288	326a	400	344	368a
3	42.0	41.8	41.9	12.0	11.0	11.4	140	107	124	34	29	31	376	272	330a	384	320	355a
3	43.0	41.6	42.2	12.8	11.5	12.1	137	98	118	36	31	34	384	256	339a	432	368	391a
3	42.4	41.0	41.9	13.1	11.5	12.2	136	104	119	35	29	32	400	296	335a	456	336	372a
3	43.6	40.6	42.3	13.0	11.9	12.3	147	109	126	34	31	33	400	208	351a	408	352	386a
3	44.0	42.0	43.2	13.0	12.0	12.4	150	113	130	37	29	33	400	304	347a	456	336	387a
			42.0			12.0			124			32			338			373
			41.6			12.3			110			34			342			373
			101.0			97.6			112.7			94.1			98.8			100.0
			97.4			87.0			115.9			88.9			91.8			92.8

r one or more specimens which tore beyond the 3/8-inch limit.

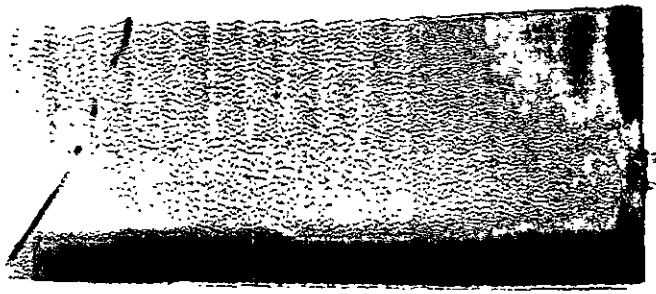


TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units				
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min
												Mill O—42-lb. Linerboard							
158237	O-43	W.F.	6/ 1/54	5/14/54	3	42.0	40.0	40.8	12.8	11.0	12.0	137	100	122	34	30	31	360	256
158238	O-44	W.F.	6/ 1/54	5/14/54	3	42.4	40.0	40.6	12.3	11.2	11.6	129	101	116	31	26	28	368	296
158239	O-45	W.F.	6/ 1/54	5/15/54	3	43.6	41.6	42.4	13.1	11.9	12.4	142	100	118	38	33	36	416	336
158240	O-46	W.F.	6/ 1/54	5/16/54	3	43.8	42.2	43.1	13.0	12.0	12.6	145	109	121	35	30	33	432	304
158247	O-47	W.F.	6/ 1/54	5/25/54	3	43.2	40.4	41.8	12.0	11.0	11.4	145	113	130	34	29	32	432	272
158248	O-48	W.F.	6/ 1/54	5/25/54	3	42.8	41.4	42.1	12.1	10.8	11.5	156	114	138	33	30	31	376	288
158435	O-49	W.F.	6/ 9/54	6/ 1/54	3	43.0	41.6	42.0	12.2	11.2	11.8	135	100	121	34	28	31	384	288
158436	O-50	W.F.	6/ 9/54	6/ 1/54	3	42.0	41.8	41.9	12.0	11.0	11.4	140	107	124	34	29	31	376	272
158503	O-51	W.F.	6/14/54	6/ 7/54	3	43.0	41.6	42.2	12.8	11.5	12.1	137	98	118	36	31	34	384	256
158504	O-52	W.F.	6/14/54	6/ 7/54	3	42.4	41.0	41.9	13.1	11.5	12.2	136	104	119	35	29	32	400	296
158669	O-53	W.F.	6/21/54	6/13/54	3	43.6	40.6	42.3	13.0	11.9	12.3	147	109	126	34	31	33	400	208
158670	O-54	W.F.	6/21/54	6/13/54	3	44.0	42.0	43.2	13.0	12.0	12.4	150	113	130	37	29	33	400	304
Current Mill Average:								42.0			12.0			124			32		
Cumulative Mill Average:								41.6			12.3			110			34		
Mill Factor, %:								101.0			97.6			112.7			94.1		
Mill Index, %:								97.4			87.0			115.9			88.9		

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVIII

ARY OF COMPOSITE MILL AVERAGES--JUNE 1 THROUGH JUNE 30, 1954

sis Weight, lb.		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
											In			Across		
Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill E--44/46-lb. Drum Linerboard																
46.0	47.8	14.2	13.1	13.6	125	88	107	44	38	40	480	368	429a	464	336	412a
46.0	47.6	15.0	13.8	14.6	108	74	97	46	38	41	488	384	437a	432	360	405a
45.0	45.5	13.7	12.6	13.1	122	83	106	44	35	40	400	336	369a	408	344	378a
	47.0			13.8			104			40			412			398
	47.2			14.4			101			39			435			417
	99.6			95.8			103.0			102.6			94.7			95.4

more specimens which tore beyond the 3/8-inch limit.

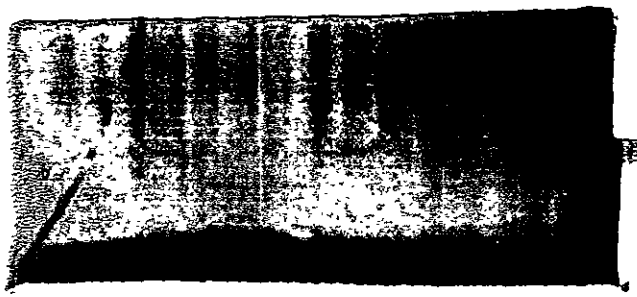


TABLE XVIII

SUMMARY OF COMPOSITE MILL AVERAGES—JUNE 1 THROUGH JUNE 30, 1954

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Basis Weight, lb. Min.	Basis Weight, lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Max.	Min.	Elmendorf Internal
											Mill E--44/46-lb. Drum Linerboard									
158396	E-74	WF1S	6/ 7/54	6/ 2/54	2	49.6	46.0	47.8	14.2	13.1	13.6	125	88	107	44	38	40	480	368	4
158626	E-76	WF1S	6/17/54	6/15/54	2	48.0	46.0	47.6	15.0	13.8	14.6	108	74	97	46	38	41	488	384	4
158689	E-77	WF1S	6/22/54	6/21/54	2	46.4	45.0	45.5	13.7	12.6	13.1	122	83	106	44	35	40	400	336	3
Current Mill Average:								47.0			13.8			104			40			4
Cumulative Mill Average:								47.2			14.4			101			39			4
Mill Factor, %:								99.6			95.8			103.0			102.6			

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

As a supplementary part of the Continuous Baseline Study, comparison of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XIX, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XIX

Mill Code	Preconditioning R.H., %	Temp., °F.	Time, hr.	Conditioning R.H., %	Temp., °F.	Time, hr.
A		None		56-68	81-90	--
B	40-75	75-92	0.5	50	70	24-120
C	50-53	72-73	48-96	50-53	72-73	48- 96
D	31-32	77-78	8	50-52	72-73	16
E		None		55	82	--
F		None		40-50	72-73	48
G		None		50	73	24-36
H		None		50	73	24
I		None		50-52	75-85	--
J		None		50-52	72-73	0.5
K	53-60	72-77	24	56-60	72-77	--
L		None		56-75	80-87	--
M		None		47-61	68-74	--
N	50	72-73	24	50	73-75	24
O		None		50	73	2
E*		None		57-65	88-90	--

* Drum linerboard.

A summary of the mill comparisons for the current period as compared with the previous period may be seen in Tables XX and XXI, respectively. The comparison for the various mills is given in Tables XXII to XXXVI, for the 42-lb. liner samples. A comparison of the

special drum stock is given in Table XXXVII. In all the comparisons given in Tables XX to XXXVII, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XX and XXI indicates that in the majority of cases there is good agreement between the mill and Institute data. Table XX shows the average difference encountered in the comparison of Institute and mill results for the sample lots submitted by each mill for the current period, as well as the maximum difference encountered in comparing the Institute and mill test results for a given sample lot. In Table XXI, the average differences shown for each test in Table XX have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XXI that the maximum variation between the average basis weight results of the Institute and those of a given mill on corresponding samples is three per cent for the current period. This maximum percentage variation agrees favorably with the corresponding variations for the previous periods. Further, it may be noted that the average basis weight results for Mills A, C, D, E, G, H, I, K, L, and N are higher than those for the Institute, whereas the results for Mills F, J, and O are the same and the results for the other mills are lower. In general, the agreement between Institute and mill basis weight results is very good.

The maximum variation in caliper for the current period is six per cent. Compared with the values for the Institute, the average

TABLE XX

SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

	Mills*														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
No. Samples Compared	7	12	8	6	1	9	6	6	7	4	4	8	6	8	12
Basis Weight															
Institute	42.8	43.1	42.8	43.0	40.2	42.9	42.5	42.5	42.7	42.6	43.6	43.1	43.8	42.6	42.0
Mill	42.9	42.9	42.9	44.0	40.5	42.9	42.8	43.2	42.8	42.6	43.7	43.3	42.7	42.8	42.0
Av. Diff.**	+0.1	-0.2	+0.1	+1.0	+0.3	0.0	+0.3	+0.7	+0.1	0.0	+0.1	+0.2	-1.1	+0.2	0.0
Max. Diff.***	-0.7	-0.5	+0.4	+1.6	+0.3	+0.7	+0.5	+1.3	±0.5	±0.2	-0.5	+1.4	-1.3	+0.9	+0.6
Caliper															
Institute	12.7	12.6	14.1	12.3	12.6	13.4	11.9	12.2	13.3	13.8	13.0	14.0	13.7	12.0	12.0
Mill	12.8	12.4	13.6	12.2	11.8	12.8	11.7	12.1	12.9	13.0	12.7	13.4	13.0	11.7	11.7
Av. Diff.**	+0.1	-0.2	-0.5	-0.1	-0.8	-0.6	-0.2	-0.1	-0.4	-0.8	-0.3	-0.6	-0.7	-0.3	-0.3
Max. Diff.***	+0.2	-0.6	-0.7	-0.3	-0.8	-0.8	-0.5	-0.3	-0.5	-0.9	-0.7	-1.2	-1.1	-0.5	-0.6
Bursting Strength															
Institute	115	119	112	111	107	103	112	110	109	110	106	106	111	111	124
Mill	113	112	106	110	94	109	113	108	107	107	107	104	112	108	122
Av. Diff.**	-2	-7	-6	-1	-13	+6	+1	-2	-2	-3	+1	-2	+1	-3	-2
Max. Diff.***	-6	-11	-10	-7	-13	+9	+3	-6	-7	-7	+6	-9	+5	-5	-10

(continued on next page)

TABLE XX (Continued)

SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

	Mills*														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
No. Samples Compared	7	12	8	6	1	9	6	6	7	4	4	8	6	8	12
G. E. Puncture															
Institute	33	28	35	35	30	38	29	34	32	31	38	35	35	37	32
Mill	37	28	36	--	30	38	26	33	33	32	--	--	33	--	--
Av. Diff.**	+4	0	+1	--	0	0	-3	-1	+1	+1	--	--	-2	--	--
Max. Diff.***	+5	-3	+3	--	0	±3	-4	-3	-4	+2	--	--	-6	--	--
Tearing Strength, in															
Institute	338	280	349	362	313	388	303	373	330	382	387	338	386	347	338
Mill	326	278	321	404	309	359	331	347	346	281	386	339	387	371	310
Av. Diff.**	-12	-2	-28	+42	-4	-29	+28	-26	+16	-51	- 1	+1	+1	-24	-28
Max. Diff.***	-31	±16	-45	+57	-4	-62	+42	-53	+50	-58	+51	+46	+39	+42	-50
Tearing Strength, across															
Institute	374	338	389	384	341	417	331	391	390	378	396	373	389	394	373
Mill	380	351	381	425	357	403	330	382	419	358	417	392	394	456	367
Av. Diff.**	+6	+13	-8	+41	+16	-14	-1	-9	+29	-20	+21	-19	+5	+62	-6
Max. Diff.***	+20	+48	-33	+63	+16	-42	-29	-20	+58	-32	+54	+52	-55	+79	-17

* Comparison based on averages involves only those samples on which mill test data were submitted.

** Average difference is the difference between the Institute mill average and the mill average based on mill test data.

*** Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.

TABLE XXI

COMPARISON OF INSTITUTE-MILL DIFFERENCES BY PERIODS

	Average Differences, %					
	Basis Weight	Caliper	Bursting Strength	G. E. Puncture	Tearing Strength in	Tearing Strength across
Mill A						
Current period	+0.2	+0.8	-2	+12	-4	+2
83rd period	-0.5	+0.8	-3	+12	+2	+0.8
82nd period	-0.9	+0.8	+3	+9	-4	+0.5
Mill B						
Current period	-0.5	-2	-6	0	-0.7	+4
83rd period	0	-0.8	-6	-4	-1	+2
82nd period	0	0	-0.9	0	+2	+3
Mill C						
Current period	+0.2	-4	-5	+3	-8	-2
83rd period	+0.2	-3	-3	0	-11	-2
82nd period	-0.5	-1	-0.9	+3	-9	-4
Mill D						
Current period	+2	-0.8	-0.9	--	+12	+11
83rd period	+2	-5	+4	--	+0.5	+4
82nd period	+1	-0.8	+5	--	+3	+5
Mill E						
Current period	+0.7	-6	-12	0	-1	+5
83rd period	+2	-7	-0.9	-3	-12	-2
82nd period	-0.2	-8	+6	-3	-18	-8
Mill F						
Current period	0	-4	+6	0	-7	-0.3
83rd period	-0.2	-5	-0.9	0	-9	-0.7
82nd period	+0.2	-3	+6	+3	-5	-1
Mill G						
Current period	+0.7	-2	+0.9	-10	+9	-0.3
83rd period	+0.7	-2	0	-13	+10	-5
82nd period	-0.9	-0.8	+4	+3	-9	-2
Mill H						
Current period	+2	-0.8	-2	-3	-7	-2
83rd period	+1	0	-0.9	-3	-2	+3
82nd period	+0.7	0	-3	-3	-1	+4
Mill I						
Current period	+0.2	-3	-2	+3	+5	+7
83rd period	-1	-3	-3	-3	-4	+0.8
82nd period	0	-0.8	+2	+3	+2	+6
Mill J						
Current period	0	-6	-3	+3	-15	-5
83rd period	-0.7	-3	-3	+3	-7	-2
82nd period	+0.2	-1	+2	+6	-1	+8
Mill K						
Current period	+0.2	-2	+0.9	--	-0.3	+5
83rd period	-0.5	-2	+0.9	--	-1	+3
82nd period	+0.2	-1	+2	--	-7	-3

82nd period	-0.9	+0.8	+3	+9	-4	+0.5
Mill B						
Current period	-0.5	-2	-6	0	-0.7	+4
83rd period	0	-0.8	-6	-4	-1	+2
82nd period	0	0	-0.9	0	+2	+3
Mill C						
Current period	+0.2	-4	-5	+3	-8	-2
83rd period	+0.2	-3	-3	0	-11	-2
82nd period	-0.5	-1	-0.9	+3	-9	-4
Mill D						
Current period	+2	-0.8	-0.9	--	+12	+11
83rd period	+2	-5	+4	--	+0.5	+4
82nd period	+1	-0.8	+5	--	+3	+5
Mill E						
Current period	+0.7	-6	-12	0	-1	+5
83rd period	+2	-7	-0.9	-3	-12	-2
82nd period	-0.2	-8	+6	-3	-18	-8
Mill F						
Current period	0	-4	+6	0	-7	-0.3
83rd period	-0.2	-5	-0.9	0	-9	-0.7
82nd period	+0.2	-3	+6	+3	-5	-1
Mill G						
Current period	+0.7	-2	+0.9	-10	+9	-0.3
83rd period	+0.7	-2	0	-13	+10	-5
82nd period	-0.9	-0.8	+4	+3	-9	-2
Mill H						
Current period	+2	-0.8	-2	-3	-7	-2
83rd period	+1	0	-0.9	-3	-2	+3
82nd period	+0.7	0	-3	-3	-1	+4
Mill I						
Current period	+0.2	-3	-2	+3	+5	+7
83rd period	-1	-3	-3	-3	-4	+0.8
82nd period	0	-0.8	+2	+3	+2	+6
Mill J						
Current period	0	-6	-3	+3	-15	-5
83rd period	-0.7	-3	-3	+3	-7	-2
82nd period	+0.2	-1	+2	+6	-1	+8
Mill K						
Current period	+0.2	-2	+0.9	--	-0.3	+5
83rd period	-0.5	-2	+0.9	--	-1	+3
82nd period	+0.2	-1	+2	--	-7	-3
Mill L						
Current period	+0.5	-4	-2	--	+0.3	-5
83rd period	-0.9	-5	0	--	+2	+7
82nd period	-2	-6	+2	--	-5	+3
Mill M						
Current period	-3	-5	+0.9	-6	+0.3	+1
83rd period	-3	-5	+0.9	0	-1	-0.3
82nd period	-2	-4	+4	-9	+3	+1
Mill N						
Current period	+0.5	-2	-3	--	-7	+16
83rd period	+0.5	-2	-4	--	+5	+19
82nd period	0	-3	-2	--	+2	+17
Mill O						
Current period	0	-2	-2	--	-8	-2
83rd period	0	-5	-0.9	--	-7	-0.3
82nd period	0	-2	-3	--	-9	-3

TABLE XXII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954

Institute Data versus Mill Data

eight,		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
ll	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
					Mill A--42-lb. Linerboard											
.9	+0.3	12.9	13.0	+0.1	106	109	+ 3	33	35	+ 2	353a	327	-26	393a	379	-14
9	-0.7	12.8	12.8	0.0	114	115	+ 1	34	36	+ 2	327a	333	+ 6	371a	391	+20
0	0.0	12.9	12.9	0.0	112	111	- 1	34	36	+ 2	361a	330	-31	365a	385	+20
.7	+0.2	12.8	12.9	+0.1	115	111	- 4	32	35	+ 3	339	323	-16	369a	375	+ 6
.0	-0.2	12.5	12.7	+0.2	119	113	- 6	36	39	+ 3	338a	319	-19	383a	379	- 4
.8	+0.1	12.5	12.6	+0.1	118	114	- 4	34	39	+ 5	321a	327	+ 6	371a	380	+ 9
.7	+0.5	12.4	12.3	-0.1	118	115	- 3	31	36	+ 5	328a	324	- 4	365a	367	+ 2
9	+0.1	12.7	12.8	+0.1	115	113	- 2	33	37	+ 4	338	326	-12	374	380	+ 6

or more specimens which tore beyond the 3/8-inch limit.

lculated from the totals of the individual readings.

TABLE XXII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf, g./In		
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill A--42-lb. Linerboard																			
158382	A-551	WF1S	5/26/54	2	42.6	42.9	+0.3	12.9	13.0	+0.1	106	109	+ 3	33	35	+ 2	353a	327	-26
158340	A-552	WF1S	5/30/54	1	43.6	42.9	-0.7	12.8	12.8	0.0	114	115	+ 1	34	36	+ 2	327a	333	+ 6
158392	A-553	WF1S	5/31/54	1	43.0	43.0	0.0	12.9	12.9	0.0	112	111	- 1	34	36	+ 2	361a	330	-31
158393	A-554	WF1S	5/30/54	2	42.5	42.7	+0.2	12.8	12.9	+0.1	115	111	- 4	32	35	+ 3	339	323	-16
158662	A-555	WF1S	6/ 9/54	1	43.2	43.0	-0.2	12.5	12.7	+0.2	119	113	- 6	36	39	+ 3	338a	319	-19
158663	A-556	WF1S	6/ 9/54	1	42.7	42.8	+0.1	12.5	12.6	+0.1	118	114	- 4	34	39	+ 5	321a	327	+ 6
158710	A-557	WF1S	6/13/54	1	42.2	42.7	+0.5	12.4	12.3	-0.1	118	115	- 3	31	36	+ 5	328a	324	- 4
Current Mill Average:					42.8	42.9	+0.1	12.7	12.8	+0.1	115	113	- 2	33	37	+ 4	338	326	-12

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXIII

RY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

nt, Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendorf Tear, g./sheet In IPC	Elmendorf Tear, g./sheet In Mill	Elmendorf Tear, g./sheet In Diff.	Elmendorf Tear, g./sheet Across IPC	Elmendorf Tear, g./sheet Across Mill	Elmendorf Tear, g./sheet Across Diff.
				Mill B---42-lb. Linerboard											
0.0	12.9	12.4	-0.5	114	109	- 5	28	25	- 3	257a	244	-13	323a	322	- 1
-0.4	13.0	12.4	-0.6	111	109	- 2	27	25	- 2	265a	249	-16	325a	319	- 6
+0.2	12.5	12.6	+0.1	110	110	0	28	26	- 2	259	253	- 6	311a	323	+12
-0.2	13.0	12.6	-0.4	112	110	- 2	27	26	- 1	251	259	+ 8	319a	329	+10
-0.3	12.8	12.5	-0.3	127	117	-10	31	32	+ 1	293a	303	+10	369a	379	+10
0.0	12.7	12.6	-0.1	126	115	-11	30	30	0	302	305	+ 3	367a	387	+20
+0.2	12.6	12.6	0.0	126	117	- 9	31	30	- 1	306a	322	+16	352a	400	+48
0.0	12.6	12.6	0.0	124	115	- 9	31	30	- 1	308a	324	+16	366a	399	+33
-0.4	12.2	11.9	-0.3	116	111	- 5	27	29	+ 2	269	274	+ 5	333a	345	+12
-0.5	12.3	12.0	-0.3	120	112	- 8	28	29	+ 1	274	261	-13	330a	327	- 3
-0.4	12.3	12.0	-0.3	121	110	-11	27	27	0	283a	270	-13	337a	331	- 6
-0.2	12.6	12.0	-0.3	116	110	- 6	28	28	0	289	276	-13	330a	345	+15
-0.2	12.6	12.4	-0.2	119	112	- 7	28	28	0	280	278	- 2	338	351	+13

more specimens which tore beyond the 3/8-inch limit.

lated from the totals of the individual readings.

[redacted]

TABLE XXIII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g. In		
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
											Mill B—42-lb. Linerboard								
158290	B-1007	WF1S	5/25/54	1	42.6	42.6	0.0	12.9	12.4	-0.5	114	109	- 5	28	25	- 3	257a	244	-13
158253	B-1008	WF1S	5/25/54	1	43.1	42.7	-0.4	13.0	12.4	-0.6	111	109	- 2	27	25	- 2	265a	249	-16
158291	B-1009	WF1S	5/25/54	1	42.8	43.0	+0.2	12.5	12.6	+0.1	110	110	0	28	26	- 2	259	253	- 6
158254	B-1010	WF1S	5/25/54	1	43.3	43.1	-0.2	13.0	12.6	-0.4	112	110	- 2	27	26	- 1	251	259	+ 8
158507	B-1011	WF1S	6/ 3/54	1	44.2	43.9	-0.3	12.8	12.5	-0.3	127	117	-10	31	32	+ 1	293a	303	+10
158508	B-1012	WF1S	6/ 3/54	1	43.8	43.8	0.0	12.7	12.6	-0.1	126	115	-11	30	30	0	302	305	+ 3
158509	B-1013	WF1S	6/ 3/54	1	44.0	44.2	+0.2	12.6	12.6	0.0	126	117	- 9	31	30	- 1	306a	322	+16
158510	B-1014	WF1S	6/ 3/54	1	43.8	43.8	0.0	12.6	12.6	0.0	124	115	- 9	31	30	- 1	308a	324	+16
158657	B-1015	WF1S	6/ 9/54	1	42.2	41.8	-0.4	12.2	11.9	-0.3	116	111	- 5	27	29	+ 2	269	274	+ 5
158658	B-1016	WF1S	6/ 9/54	1	42.5	42.0	-0.5	12.3	12.0	-0.3	120	112	- 8	28	29	+ 1	274	261	-13
158659	B-1017	WF1S	6/ 9/54	1	42.5	42.1	-0.4	12.3	12.0	-0.3	121	110	-11	27	27	0	283a	270	-13
158660	B-1018	WF1S	6/ 9/54	1	42.5	42.9	-0.2	12.6	12.0	-0.3	116	110	- 6	28	28	0	289	276	-13
Current Mill Average:					43.1	42.9	-0.2	12.6	12.4	-0.2	119	112	- 7	28	28	0	280	278	- 2

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXIV

OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

Diff.	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
						Mill C—42-lb. Linerboard									
0.0	13.7	13.1	-0.6	114	104	-10	33	34	+ 1	336	313	-23	369a	368	- 1
0.3	13.8	13.2	-0.6	110	104	- 6	33	34	+ 1	334a	313	-21	373a	373	0
0.1	14.7	14.1	-0.6	112	108	- 4	36	36	0	369a	329	-40	399a	366	-33
0.1	14.8	14.1	-0.7	114	107	- 7	37	38	+ 1	361a	327	-34	407a	385	-22
0.2	14.3	13.8	-0.5	104	104	0	36	38	+ 2	377a	332	-45	392a	383	- 9
0.2	14.4	13.8	-0.6	108	103	- 5	36	39	+ 3	335	322	-13	400a	385	-15
0.2	13.6	13.3	-0.3	116	112	- 4	36	35	- 1	331	311	-20	392a	404	+12
0.4	13.8	13.2	-0.6	116	110	- 6	35	35	0	349	320	-29	379a	380	+ 1
0.1	14.1	13.6	-0.5	112	106	- 6	35	36	+ 1	349	321	-28	389	381	- 8

ore specimens which tore beyond the 3/8-inch limit.

ated from the totals of the individual readings.

[redacted]

TABLE XXIV

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elm In IPC	Elm In Mill	Elm In Dif
										Mill C—42-lb. Linerboard									
158475	C-571	W.F.	6/ 1/54	1	42.2	42.2	0.0	13.7	13.1	-0.6	114	104	-10	33	34	+ 1	336	313	-2
158476	C-572	W.F.	6/ 1/54	1	41.9	42.2	+0.3	13.8	13.2	-0.6	110	104	- 6	33	34	+ 1	334a	313	-2
158477	C-573	W.F.	6/ 4/54	1	44.0	44.1	+0.1	14.7	14.1	-0.6	112	108	- 4	36	36	0	369a	329	-4
158478	C-574	W.F.	6/ 4/54	1	44.1	44.0	-0.1	14.8	14.1	-0.7	114	107	- 7	37	38	+ 1	361a	327	-3
158479	C-575	W.F.	6/ 5/54	1	42.8	43.0	+0.2	14.3	13.8	-0.5	104	104	0	36	38	+ 2	377a	332	-4
158494	C-576	W.F.	6/ 5/54	1	43.0	43.2	+0.2	14.4	13.8	-0.6	108	103	- 5	36	39	+ 3	335	322	-1
158495	C-577	W.F.	6/ 7/54	1	42.1	42.3	+0.2	13.6	13.3	-0.3	116	112	- 4	36	35	- 1	331	311	-2
158496	C-578	W.F.	6/ 7/54	1	41.8	42.2	+0.4	13.8	13.2	-0.6	116	110	- 6	35	35	0	349	320	-2
Current Mill Average:					42.8	42.9	+0.1	14.1	13.6	-0.5	112	106	- 6	35	36	+ 1	349	321	-2

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXV

MARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

ght, Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf Tear, g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
				Mill D—42-lb. Linerboard											
+0.9	12.2	11.9	-0.3	107	108	+ 1	36			369a	420	+51	393a	439	+46
+0.7	12.5	12.3	-0.2	109	113	+ 4	36			352a	399	+47	395a	415	+20
+1.0	12.2	12.2	0.0	111	115	+ 4	36			401a	420	+19	398a	439	+41
+1.0	12.3	12.2	-0.1	118	111	- 7	35			359a	385	+26	396a	428	+32
+1.6	12.5	12.3	-0.2	114	109	- 5	34			372a	429	+57	369a	432	+63
+1.0	12.1	12.2	+0.1	104	102	- 2	33			321a	371	+50	351a	396	+45
+1.0	12.3	12.2	-0.1	111	110	- 1	35			362	404	+42	384	425	+41

TABLE XXVI

				Mill E—42-lb. Linerboard											
+0.3	12.6	11.8	-0.8	107	94	-13	30	30	0	313	309	- 4	341a	357	+16
+0.3	12.6	11.8	-0.8	107	94	-13	30	30	0	313	309	- 4	341	357	+16

more specimens which tore beyond the 3/8-inch limit.

ulated from the totals of the individual readings.

TABLE XXV

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb. IPC	Mill	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendc g./s In IPC	Mill	Diff.
Mill D—42-lb. Linerboard																			
158383	D-769	W.F.	6/ 1/54	4	42.6	43.5	+0.9	12.2	11.9	-0.3	107	108	+ 1	36			369a	420	+51
158433	D-770	W.F.	6/ 3/54	4	43.6	44.3	+0.7	12.5	12.3	-0.2	109	113	+ 4	36			352a	399	+47
158434	D-771	W.F.	6/ 5/54	4	43.5	44.5	+1.0	12.2	12.2	0.0	111	115	+ 4	36			401a	420	+19
158474	D-772	W.F.	6/ 8/54	4	43.0	44.0	+1.0	12.3	12.2	-0.1	118	111	- 7	35			359a	385	+26
158709	D-773	W.F.	6/18/54	4	43.1	44.7	+1.6	12.5	12.3	-0.2	114	109	- 5	34			372a	429	+57
158712	D-774	W.F.	6/20/54	4	42.0	43.0	+1.0	12.1	12.2	+0.1	104	102	- 2	33			321a	371	+50
Current Mill Average:					43.0	44.0	+1.0	12.3	12.2	-0.1	111	110	- 1	35			362	404	+42

TABLE XXVI

Mill E—42-lb. Linerboard																			
158500	E-75	WF1S	6/ 9/54	2	40.2	40.5	+0.3	12.6	11.8	-0.8	107	94	-13	30	30	0	313	309	- 4
Current Mill Average:					40.2	40.5	+0.3	12.6	11.8	-0.8	107	94	-13	30	30	0	313	309	- 4

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXVII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

Weight, lb.		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
					Mill F--42-lb. Linerboard											
41.8	-0.6	13.1	12.6	-0.5	102	106	+ 4	36	36	0	365a	352	-13	413a	393	-20
42.8	-0.6	13.3	12.6	-0.7	102	109	+ 7	39	38	- 1	389a	367	-22	423a	413	-10
43.2	+0.2	12.9	12.3	-0.6	104	110	+ 6	37	39	+ 2	379a	367	-12	400a	404	+ 4
43.4	0.0	13.3	12.8	-0.5	96	105	+ 9	36	39	+ 3	392a	367	-25	405a	405	0
42.5	+0.1	13.2	12.8	-0.4	101	107	+ 6	36	37	+ 1	377a	365	-12	414a	419	+ 5
43.6	+0.4	13.8	13.2	-0.6	104	105	+ 1	39	38	- 1	398a	368	-30	425a	427	+ 2
43.5	+0.7	13.7	13.1	-0.6	103	109	+ 6	40	39	- 1	393a	364	-29	428a	403	-25
42.8	-0.1	13.6	12.9	-0.7	106	114	+ 8	40	37	- 3	402a	352	-50	423a	388	-35
42.0	-0.4	14.1	13.3	-0.8	109	113	+ 4	37	37	0	394a	332	-62	421a	379	-42
42.9	0.0	13.4	12.8	-0.6	103	109	+ 6	38	38	0	388	359	-29	417	403	-14

ne or more specimens which tore beyond the 3/8-inch limit.

calculated from the totals of the individual readings.

TABLE XXVII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g		
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill F--42-lb. Linerboard																			
158235	F-36	—	5/12/54	—	42.4	41.8	-0.6	13.1	12.6	-0.5	102	106	+ 4	36	36	0	365a	352	-
158236	F-37	—	5/12/54	—	43.4	42.8	-0.6	13.3	12.6	-0.7	102	109	+ 7	39	38	- 1	389a	367	-
158255	F-38	W.F.	5/19/54	—	43.0	43.2	+0.2	12.9	12.3	-0.6	104	110	+ 6	37	39	+ 2	379a	367	-
158256	F-39	W.F.	5/26/54	—	43.4	43.4	0.0	13.3	12.8	-0.5	96	105	+ 9	36	39	+ 3	392a	367	-
158397	F-40	W.F.	5/27/54	—	42.4	42.5	+0.1	13.2	12.8	-0.4	101	107	+ 6	36	37	+ 1	377a	365	-
158398	F-41	W.B.	5/28/54	—	43.2	43.6	+0.4	13.8	13.2	-0.6	104	105	+ 1	39	38	- 1	398a	368	-
158664	F-42	W.B.	6/ 7/54	—	42.8	43.5	+0.7	13.7	13.1	-0.6	103	109	+ 6	40	39	- 1	393a	364	-
158665	F-43	W.F.	6/11/54	—	42.9	42.8	-0.1	13.6	12.9	-0.7	106	114	+ 8	40	37	- 3	402a	352	-
158666	F-44	W.F.	6/11/54	—	42.4	42.0	-0.4	14.1	13.3	-0.8	109	113	+ 4	37	37	0	394a	332	-
Current Mill Average:					42.9	42.9	0.0	13.4	12.8	-0.6	103	109	+ 6	38	38	0	388	359	-

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXVIII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

ight, l	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf Tear, g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
					Mill G--42-lb. Linerboard											
6	+0.3	12.1	11.8	-0.3	111	113	+ 2	28	25	- 3	299a	319	+20	333a	304	-29
1	-0.2	12.3	12.1	-0.2	112	111	- 1	29	28	- 1	301a	342	+41	326a	335	+ 9
3	+0.5	12.0	11.5	-0.5	112	113	+ 1	28	24	- 4	304a	324	+20	327a	321	- 6
6	+0.5	11.9	11.6	-0.3	113	116	+ 3	29	25	- 4	299a	341	+32	340a	351	+11
3	+0.3	11.8	11.5	-0.3	111	110	- 1	28	27	- 1	302a	338	+36	327a	331	+ 4
)	+0.4	11.5	11.5	0.0	115	113	- 2	30	29	- 1	315a	323	+ 8	331a	339	+ 8
3	+0.3	11.9	11.7	-0.2	112	113	+ 1	29	26	- 3	303	331	+28	331	330	- 1

TABKE XXIX

					Mill H--42-lb. Linerboard											
)	+0.9	12.2	12.4	+0.2	113	109	- 4	33	33	0	363a	360	- 3	409a	398	-11
/	+0.6	12.2	12.1	-0.1	107	104	- 3	35	33	- 2	373a	344	-29	384a	377	- 7
/	+0.8	12.4	12.2	-0.2	106	105	- 1	34	33	- 1	361a	314	-47	369a	352	-17
)	+1.3	12.1	12.1	0.0	113	107	- 6	32	32	0	356a	345	-11	390a	387	- 3
)	+0.2	12.3	12.0	-0.3	111	112	+ 1	36	33	- 3	409a	356	-53	403a	383	-20
/	+0.4	12.1	12.1	0.0	108	111	+ 3	34	32	- 2	380a	365	-15	391a	397	+ 6
!	+0.7	12.2	12.1	-0.1	110	108	- 2	34	33	- 1	373	347	-26	391	382	- 9

· more specimens which tore beyond the 3/8-inch limit.

·ulated from the totals of the individual readings.

TABLE XXVIII

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elm In IPC	Elm In Mill	Elm In Dif
										Mill G--42-lb. Linerboard									
158251	G-582-A	W.F.	5/24/54	1	42.3	42.6	+0.3	12.1	11.8	-0.3	111	113	+ 2	28	25	- 3	299a	319	+2(
158252	G-583-A	W.F.	5/24/54	1	43.3	43.1	-0.2	12.3	12.1	-0.2	112	111	- 1	29	28	- 1	301a	342	+4)
158443	G-584	W.F.	6/ 2/54	1	41.8	42.3	+0.5	12.0	11.5	-0.5	112	113	+ 1	28	24	- 4	304a	324	+2(
158444	G-585	W.F.	6/ 2/54	1	43.1	43.6	+0.5	11.9	11.6	-0.3	113	116	+ 3	29	25	- 4	299a	341	+3:
158667	G-586	W.F.	6/14/54	2	42.0	42.3	+0.3	11.8	11.5	-0.3	111	110	- 1	28	27	- 1	302a	338	+3(
158668	G-587	W.F.	6/14/54	2	42.6	43.0	+0.4	11.5	11.5	0.0	115	113	- 2	30	29	- 1	315a	323	+ 8
Current Mill Average:					42.5	42.8	+0.3	11.9	11.7	-0.2	112	113	+ 1	29	26	- 3	303	331	+28

TABKE XXIX

										Mill H--42-lb. Linerboard									
158242	H-453	WF1S	5/17/54	2	42.6	43.5	+0.9	12.2	12.4	+0.2	113	109	- 4	33	33	0	363a	360	- 3
158243	H-454	WF1S	5/18/54	2	42.1	42.7	+0.6	12.2	12.1	-0.1	107	104	- 3	35	33	- 2	373a	344	-29
158445	H-455	WF1S	6/ 1/54	2	41.9	42.7	+0.8	12.4	12.2	-0.2	106	105	- 1	34	33	- 1	361a	314	-47
158446	H-456	WF1S	6/ 2/54	2	41.7	43.0	+1.3	12.1	12.1	0.0	113	107	- 6	32	32	0	356a	345	-11
158624	H-457	WF1S	6/ 7/54	2	43.3	43.5	+0.2	12.3	12.0	-0.3	111	112	+ 1	36	33	- 3	409a	356	-53
158625	H-458	WF1S	6/ 8/54	2	43.5	43.9	+0.4	12.1	12.1	0.0	108	111	+ 3	34	32	- 2	380a	365	-15
Current Mill Average:					42.5	43.2	+0.7	12.2	12.1	-0.1	110	108	- 2	34	33	- 1	373	347	-26

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXX

RY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

t, Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf Tear, g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
					Mill I--42-lb. Linerboard										
+0.5	13.1	12.8	-0.3	106	105	- 1	31	31	0	305a	355	+50	387a	394	+ 7
0.0	13.3	12.8	-0.5	115	108	- 7	34	30	- 4	349a	361	+12	392a	425	+33
+0.3	13.2	12.8	-0.4	110	109	- 1	33	34	+ 1	329a	336	+ 7	394a	405	+11
+ 0.4	13.2	13.0	-0.2	114	110	- 4	33	35	+ 2	313a	349	+36	401a	423	+22
-0.2	13.2	13.0	-0.2	109	106	- 3	32	33	+ 1	347a	357	+10	383a	441	+58
+0.3	13.3	13.0	-0.3	104	107	+ 3	32	33	+ 1	337a	323	-14	398a	433	+35
-0.5	13.6	13.2	-0.4	105	106	+ 1	31	32	+ 1	327a	343	+16	372a	412	+40
-0.1	13.3	12.9	-0.4	109	107	- 2	32	33	+ 1	330	346	+16	390	419	+29

TABLE XXXI

Mill J--42-lb. Linerboard

0.1	13.7	13.0	-0.7	111	109	- 2	32	33	+1	325a	280	-45	388a	369	-19
0.1	13.8	13.0	-0.8	111	109	- 2	33	32	- 1	349a	291	-58	393a	361	-32
0.2	13.9	13.0	-0.9	109	105	- 4	31	30	- 1	329a	271	-58	357a	346	-11
0.2	13.7	13.1	-0.6	110	103	- 7	30	32	+ 2	325	281	-44	375a	355	-20
0.0	13.8	13.0	-0.8	110	107	- 3	31	32	+ 1	332	281	-51	378	358	-20

re specimens which tore beyond the 3/8-inch limit.

ted from the totals of the individual readings.

[redacted]

TABLE XXX

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendor g./sh In IPC	Elmendor g./sh In Mill	Elmendor g./sh In Diff.
Mill I--42-lb. Linerboard																			
158233	I-389	WFlS	5/17/54	1	42.2	42.7	+0.5	13.1	12.8	-0.3	106	105	- 1	31	31	0	305a	355	+50
158234	I-390	WFlS	5/20/54	1	42.6	42.6	0.0	13.3	12.8	-0.5	115	108	- 7	34	30	- 4	349a	361	+12
158244	I-391	WFlS	5/24/54	1	42.7	43.0	+0.3	13.2	12.8	-0.4	110	109	- 1	33	34	+ 1	329a	336	+ 7
158245	I-392	WFlS	5/25/54	1	42.5	42.9	+ 0.4	13.2	13.0	-0.2	114	110	- 4	33	35	+ 2	313a	349	+36
158381	I-393	WFlS	6/ 1/54	1	43.2	43.0	-0.2	13.2	13.0	-0.2	109	106	- 3	32	33	+ 1	347a	357	+10
158384	I-394	WFlS	6/ 2/54	1	42.6	42.9	+0.3	13.3	13.0	-0.3	104	107	+ 3	32	33	+ 1	337a	323	-14
158729	I-395	WFlS	6/21/54	1	43.3	42.8	-0.5	13.6	13.2	-0.4	105	106	+ 1	31	32	+ 1	327a	343	+16
Current Mill Average:					42.7	42.8	+0.1	13.3	12.9	-0.4	109	107	- 2	32	33	+ 1	330	346	+16

TABLE XXXI

Mill J--42-lb. Linerboard																			
158294	J-487	B.F.	5/24/54	-	42.7	42.8	+0.1	13.7	13.0	-0.7	111	109	- 2	32	33	+1	325a	280	-45
158295	J-488	B.F.	5/24/54	-	42.6	42.7	+0.1	13.8	13.0	-0.8	111	109	- 2	33	32	- 1	349a	291	-58
158501	J-489	B.F.	6/ 4/54	-	42.5	42.3	-0.2	13.9	13.0	-0.9	109	105	- 4	31	30	- 1	329a	271	-58
158502	J-490	B.F.	6/ 4/54	-	42.4	42.6	+0.2	13.7	13.1	-0.6	110	103	- 7	30	32	+ 2	325	281	-44
Current Mill Average:					42.6	42.6	0.0	13.8	13.0	-0.8	110	107	- 3	31	32	+ 1	332	281	-51

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

MARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

Weight, lb.		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
											In			Across		
Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill K—42-lb. Linerboard																
42.7	-0.5	13.1	12.7	-0.4	108	114	+ 6	39			371a	422	+51	398a	452	+54
44.6	+0.3	13.0	12.8	-0.2	110	111	+ 1	39			415a	374	-41	414a	402	-12
43.7	+0.4	12.4	12.3	-0.1	104	100	- 4	36			371a	377	+ 6	375a	399	+24
43.9	+0.3	13.6	12.9	-0.7	104	101	- 3	37			390a	371	-19	397a	415	+18
43.7	+0.1	13.0	12.7	-0.3	106	107	+ 1	38			387	386	- 1	396	417	+21

TABLE XXXIII

Mill L—42-lb. Linerboard																
43.6	+0.5	14.2	13.8	-0.4	111	106	- 5	35			335a	375	+40	358a	408	+50
43.5	-0.4	14.9	14.3	-0.6	105	108	+ 3	34			320a	312	- 8	361a	383	+22
44.2	+1.4	13.6	13.6	0.0	104	107	+ 3	36			346a	392	+46	384a	436	+52
43.0	+0.1	13.9	13.5	-0.4	113	112	- 1	35			335a	335	0	369a	404	+35
41.7	+0.5	14.3	13.6	-0.7	96	95	- 1	32			322a	308	-14	347a	351	+ 4
43.8	-0.1	13.6	12.8	-0.8	105	101	- 4	35			353a	317	-36	383a	372	-11
43.5	-0.2	13.8	13.0	-0.8	105	103	- 2	38			352a	333	-19	391a	382	- 9
43.0	-0.4	14.1	12.9	-1.2	112	103	- 9	37			337a	340	+ 3	391a	399	+ 8
43.3	+0.2	14.0	13.4	-0.6	106	104	- 2	35			338	339	+ 1	373	392	-19

e or more specimens which tore beyond the 3/8-inch limit.

calculated from the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmend g./ In IPC	Elmend g./ In Mill	Elmend g./ In Diff
Mill K—42-lb. Linerboard																			
158246	K-32		5/25/54	7	43.2	42.7	-0.5	13.1	12.7	-0.4	108	114	+ 6	39			371a	422	+51
158399	K-33		6/ 1/54	7	44.3	44.6	+0.3	13.0	12.8	-0.2	110	111	+ 1	39			415a	374	-41
158493	K-34		6/ 7/54	7	43.3	43.7	+0.4	12.4	12.3	-0.1	104	100	- 4	36			371a	377	+ 6
158711	K-35		6/27/54	7	43.6	43.9	+0.3	13.6	12.9	-0.7	104	101	- 3	37			390a	371	-19
Current Mill Average:					43.6	43.7	+0.1	13.0	12.7	-0.3	106	107	+ 1	38			387	386	- 1

TABLE XXXIII

Mill L—42-lb. Linerboard																			
158292	L-275		5/19/54	1	43.1	43.6	+0.5	14.2	13.8	-0.4	111	106	- 5	35			335a	375	+40
158293	L-276		5/16/54	1	43.9	43.5	-0.4	14.9	14.3	-0.6	105	108	+ 3	34			320a	312	- 8
158394	L-277		5/26/54	1	42.8	44.2	+1.4	13.6	13.6	0.0	104	107	+ 3	36			346a	392	+46
158395	L-278		5/30/54	1	42.9	43.0	+0.1	13.9	13.5	-0.4	113	112	- 1	35			335a	335	0
158581	L-279		6/ 5/54	1	41.2	41.7	+0.5	14.3	13.6	-0.7	96	95	- 1	32			322a	308	-14
158582	L-280		6/ 6/54	1	43.9	43.8	-0.1	13.6	12.8	-0.8	105	101	- 4	35			353a	317	-36
158687	L-281		6/ 9/54	1	43.7	43.5	-0.2	13.8	13.0	-0.8	105	103	- 2	38			352a	333	-19
158688	L-282		6/12/54	1	43.4	43.0	-0.4	14.1	12.9	-1.2	112	103	- 9	37			337a	340	+ 3
Current Mill Average:					43.1	43.3	+0.2	14.0	13.4	-0.6	106	104	- 2	35			338	339	+ 1

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

MMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

Weight,		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill M—42-lb. Linerboard																
3.5	-1.3	14.3	13.2	-1.1	114	115	+ 1	37	31	- 6	431a	395	-36	418a	363	-55
2.0	-1.3	13.4	12.8	-0.6	114	114	0	33	32	- 1	355a	358	+ 3	385a	397	+12
2.4	-1.1	13.6	13.0	-0.6	107	112	+ 5	35	34	- 1	397a	379	-18	394a	401	+ 7
2.8	-0.7	13.7	13.0	-0.7	113	110	- 3	35	34	- 1	377a	372	- 5	389a	407	+18
2.4	-1.1	13.3	12.6	- 0.7	113	112	- 1	33	33	0	370a	395	+25	377a	382	+ 5
3.3	-0.5	13.9	13.2	-0.7	108	107	- 1	36	34	- 2	386a	425	+39	373a	416	+43
2.7	-1.1	13.7	13.0	-0.7	111	112	+ 1	35	33	- 2	386	387	+ 1	389	394	+ 5

TABLE XXXV

Mill N—42-lb. Linerboard																
.2	+0.1	12.0	11.5	-0.5	111	110	- 1	36			339a	371	+32	395a	457	+62
.8	-0.3	12.7	12.2	-0.5	105	102	- 3	38			360a	360	0	404a	446	+42
.2	+0.7	12.0	11.9	-0.1	105	103	- 2	35			332a	374	+42	385a	451	+66
.7	+0.1	12.1	11.8	-0.3	110	108	- 2	35			346a	387	+41	393a	471	+78
.2	+0.2	12.0	11.6	-0.4	115	110	- 5	41			359a	372	+13	406a	451	+45
.3	+0.3	11.7	11.4	-0.3	111	109	- 2	35			338a	352	+14	379a	458	+79
.7	+0.1	12.0	11.7	-0.3	112	107	- 5	37			351a	374	+23	377a	454	+77
.7	+0.9	11.8	11.6	-0.2	118	117	- 1	37			355a	377	+22	408a	458	+50
.8	+0.2	12.0	11.7	-0.3	111	108	- 3	37			347	371	-24	394	456	+62

or more specimens which tore beyond the 3/8-inch limit.

lculated from the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb. IPC	Mill	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elm IPC	Mill	I
Mill M—42-lb. Linerboard																			
158241	M-234	W.	5/20/54	4	44.8	43.5	-1.3	14.3	13.2	-1.1	114	115	+ 1	37	31	- 6	431a	395	
158288	M-235	W.	5/23/54	2	43.3	42.0	-1.3	13.4	12.8	-0.6	114	114	0	33	32	- 1	355a	358	
158289	M-236	W.	5/24/54	2	43.5	42.4	-1.1	13.6	13.0	-0.6	107	112	+ 5	35	34	- 1	397a	379	
158505	M-237	W.	6/ 1/54	2	43.5	42.8	-0.7	13.7	13.0	-0.7	113	110	- 3	35	34	- 1	377a	372	
158506	M-238	W.	6/ 3/54	4	43.5	42.4	-1.1	13.3	12.6	- 0.7	113	112	- 1	33	33	0	370a	395	
158661	M-239	W.	6/ 8/54	4	43.8	43.3	-0.5	13.9	13.2	-0.7	108	107	- 1	36	34	- 2	386a	425	+
Current Mill Average:					43.8	42.7	-1.1	13.7	13.0	-0.7	111	112	+ 1	35	33	- 2	386	387	+

TABLE XXXV

Mill N—42-lb. Linerboard																			
158346	N-81	WF1S	5/24/54	1	42.1	42.2	+0.1	12.0	11.5	-0.5	111	110	- 1	36			339a	371	+3
158347	N-82	WF1S	5/22/54	1	44.1	43.8	-0.3	12.7	12.2	-0.5	105	102	- 3	38			360a	360	
158348	N-83	WF1S	5/29/54	1	41.5	42.2	+0.7	12.0	11.9	-0.1	105	103	- 2	35			332a	374	+4
158349	N-84	——	5/31/54	1	42.6	42.7	+0.1	12.1	11.8	-0.3	110	108	- 2	35			346a	387	+4
158671	N-85	D.F.	6/ 6/54	1	44.0	44.2	+0.2	12.0	11.6	-0.4	115	110	- 5	41			359a	372	+1
158672	N-86	WF1S	6/10/54	1	42.0	42.3	+0.3	11.7	11.4	-0.3	111	109	- 2	35			338a	352	+1
158730	N-86	WF1S	6/12/54	1	42.6	42.7	+0.1	12.0	11.7	-0.3	112	107	- 5	37			351a	374	+2
158731	N-88	WF1S	6/21/54	1	41.8	42.7	+0.9	11.8	11.6	-0.2	118	117	- 1	37			355a	377	+2
Current Mill Average:					42.6	42.8	+0.2	12.0	11.7	-0.3	111	108	- 3	37			347	371	-2

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOTS--JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

Weight, lb.		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
											In			Across		
Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill O--42-lb. Linerboard																
1.4	+0.6	12.0	11.7	-0.3	122	122	0	31			314	289	-25	353a	363	+10
1.0	+0.4	11.6	11.3	-0.3	116	120	+ 4	28			321a	297	-24	344a	335	- 9
2.8	+0.4	12.4	12.0	-0.4	118	116	- 2	36			368a	321	-47	393a	376	-17
3.0	-0.1	12.6	12.0	-0.6	121	120	- 1	33			354a	304	-50	381a	364	-17
1.8	0.0	11.4	11.1	-0.3	130	131	+ 1	32			343a	317	-26	372a	371	- 1
1.8	-0.3	11.5	11.3	-0.2	138	128	-10	31			330a	311	-19	374a	379	+ 5
1.7	-0.3	11.8	11.6	-0.2	121	121	0	31			326a	299	-27	368a	367	- 1
1.7	-0.2	11.4	11.3	-0.1	124	120	- 4	31			330a	312	-18	355a	360	+ 5
2.1	-0.1	12.1	11.9	-0.2	118	117	- 1	34			339a	311	-28	391a	376	-15
1.5	-0.4	12.2	11.8	-0.4	119	118	- 1	32			335a	308	-27	372a	359	-13
2.2	-0.1	12.3	11.9	-0.4	126	125	- 1	33			351a	327	-24	386a	384	- 2
2.9	-0.3	12.4	12.1	-0.3	130	122	- 8	33			347a	321	-26	387a	377	-10
2.0	0.0	12.0	11.7	-0.3	124	122	- 2	32			338	310	-28	373	367	- 6

TABLE XXXVII

Mill E--44/46-lb. Drum Linerboard																
0.8	0.0	13.6	12.9	-0.7	107	108	+ 1	40	42	+ 2	429a	432	+ 3	412a	438	+26
0.1	+0.5	14.6	13.8	-0.8	97	94	- 3	41	42	+ 1	437a	449	+12	405a	451	+46
0.9	+0.4	13.1	12.5	-0.6	106	92	-14	40	38	- 2	369a	375	+ 6	378a	397	+19
0.3	+0.3	13.8	13.1	-0.7	104	98	- 6	40	40	0	412	419	+ 7	398	429	+31

or more specimens which tore beyond the 3/8-inch limit.

lculated from the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOTS—JUNE 1 THROUGH JUNE 30, 1954 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendorf, g./In IPC	Elmendorf, g./In Mill	Elmendorf, g./In Diff.
Mill O--42-lb. Linerboard																			
158237	O-43	W.F.	5/14/54	3	40.8	41.4	+0.6	12.0	11.7	-0.3	122	122	0	31			314	289	-25
158238	O-44	W.F.	5/14/54	3	40.6	41.0	+0.4	11.6	11.3	-0.3	116	120	+ 4	28			321a	297	-24
158239	O-45	W.F.	5/15/54	3	42.4	42.8	+0.4	12.4	12.0	-0.4	118	116	- 2	36			368a	321	-47
158240	O-46	W.F.	5/16/54	3	43.1	43.0	-0.1	12.6	12.0	-0.6	121	120	- 1	33			354a	304	-50
158247	O-47	W.F.	5/25/54	3	41.8	41.8	0.0	11.4	11.1	-0.3	130	131	+ 1	32			343a	317	-26
158248	O-48	W.F.	5/25/54	3	42.1	41.8	-0.3	11.5	11.3	-0.2	138	128	-10	31			330a	311	-19
158435	O-49	W.F.	6/ 1/54	3	42.0	41.7	-0.3	11.8	11.6	-0.2	121	121	0	31			326a	299	-27
158436	O-50	W.F.	6/ 1/54	3	41.9	41.7	-0.2	11.4	11.3	-0.1	124	120	- 4	31			330a	312	-18
158503	O-51	W.F.	6/ 7/54	3	42.2	42.1	-0.1	12.1	11.9	-0.2	118	117	- 1	34			339a	311	-28
158504	O-52	W.F.	6/ 7/54	3	41.9	41.5	-0.4	12.2	11.8	-0.4	119	118	- 1	32			335a	308	-27
158669	O-53	W.F.	6/13/54	3	42.3	42.2	-0.1	12.3	11.9	-0.4	126	125	- 1	33			351a	327	-24
158670	O-54	W.F.	6/13/54	3	43.2	42.9	-0.3	12.4	12.1	-0.3	130	122	- 8	33			347a	321	-26
Current Mill Average:					42.0	42.0	0.0	12.0	11.7	-0.3	124	122	- 2	32			338	310	-28

TABLE XXXVII

Mill E--44/46-lb. Drum Linerboard																			
158396	E-74	WF1S	6/ 2/54	2	47.8	47.8	0.0	13.6	12.9	-0.7	107	108	+ 1	40	42	+ 2	429a	432	+ 3
158626	E-76	WF1S	6/15/54	2	47.6	48.1	+0.5	14.6	13.8	-0.8	97	94	- 3	41	42	+ 1	437a	449	+12
158689	E-77	WF1S	6/21/54	2	45.5	45.9	+0.4	13.1	12.5	-0.6	106	92	-14	40	38	- 2	369a	375	+ 6
Current Mill Average:					47.0	47.3	+0.3	13.8	13.1	-0.7	104	98	- 6	40	40	0	412	419	+ 7

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.